CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]



CSO LONG TERM CONTROL PLAN

APPENDIX PART 2



CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]



CSO LONG TERM CONTROL PLAN

APPENDIX PART 2



<u>APPENDIX P</u>

1993 SMS Engineering Investigation of the Use of AMOCO Oil Company Lagoons

AN ENGINEERING INVESTIGATION OF THE USE OF THE AMOCO OIL COMPANY LAGOONS IN CONJUNCTION WITH THE TREATMENT OF COMBINED SEWER OVERFLOWS IN WOOD RIVER, ILLINOIS

June, 1993

Prepared by:

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July 2, 1993

Mr. Barrett Jones, City Manager City of Wood River 111 N. Wood River Ave. Wood River, IL 62095 RECEIVED
JUL 0 6 93

CITY OF
WOOD RIVER, IL

Dear Mr. Jones:

Herewith are four copies of our report of the engineering investigation of the use of the Amoco lagoons in conjunction with the treatment of Wood River combined sewer overflows.

We are forwarding the report for your review and for Merle Bassett's use in preparing the petition to the Pollution Control Board. Also, a copy should be sent to Mr. Jevyak at Amoco for his review and verification of part II B of the report. We are forwarding a copy of the report to Tim Palermo with a copy of this letter.

We apologize for the delay in delivering this report to you, but in conducting this investigation we found that Amoco's lagoon closure plan and proposed final operating procedure had changed considerably since our original investigation. Therefore, more time was required to assemble current data and to obtain their best estimate of the operating facilities that will be in place at the lagoons when closure operations are completed. Also, in order to adequately describe the existing Wood River and Amoco facilities and the facilities necessary to convey the overflows to the Amoco lagoons, we found that more detailed data was required than originally anticipated.

After Mr. Bassett has reviewed the report, we will assist him in the preparation of the petition to the Pollution Control Board.

REC'D

M& E SERVICES WOOD RIVER

Very truly yours,

SHEPPARD, MORGAN & SCHWAAB, INC.

L. Sheppard,

CLS/slw Enclosures

cc: Tim Palermo, w/encl.

Branch Offices:

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AN ENGINEERING INVESTIGATION OF THE USE OF THE AMOCO OIL COMPANY LAGOONS IN CONJUNCTION WITH THE TREATMENT OF COMBINED SEWER OVERFLOWS IN WOOD RIVER, ILLINOIS

L HISTORICAL BACKGROUND AND STUDY REQUIREMENTS

On December 30, 1985, the City of Wood River and the Illinois Environmental Protection Agency filed a Joint Petition with the Illinois Pollution Control Board for an exception to the Combined Sewer Overflow (CSO) Regulations in Section 306.305(a) and (b), Subpart D, Title 35 of the Illinois Administrative Code.

On June 16, 1986, a Public Hearing on the Joint Petition was held a the Wood River City Hall, Wood River, Illinois. During the hearing petitioner's exhibits "A," "B," "C," and "D" were filed with the Hearing Officer and made a part of the hearing minutes.

On February 6, 1987 a Hearing Officer's Order of the Pollution Control Board was issued requesting that the Joint Petitioners provide additional information in support of their petition. A reply to the request was provided by the Joint Petitioners on April 6, 1987. Filed with the reply were attachments I, II, III.

On July 16, 1987 an Interim Order of the Pollution Control Board was issued requesting that the Joint Petitioners provide additional information in support of their **petition.** A reply to the request was provided by the Joint Petitioners on August 17, 1987.

On September 17, 1987, the Illinois Pollution Control Board granted the City of Wood River a temporary exception from 35 Ill. Adm. Code 306.305(a) as such provision relates to first flush of storm flows and 306.305(b) for its' combined sewer overflows into the Mississippi River.

The temporary exception was granted until September 30, 1992 and contained the requirements that Wood River intercept and provide full treatment for up to 4.8 MGD flow in the 84-inch combined sewer; provide for screening of the overflows in the 84-inch combined sewer prior to discharge; and attempt to acquire the usage of the Amoco lagoons for storage and treatment of excess flows.

Wood River has provided the facilities to intercept and treat up to 4.8 MGD and is currently meeting these requirements. Wood River has also contracted for the installation of the facilities necessary to provide for the screening of the overflows in the 84-inch combined sewer prior to discharge to the Mississippi River. The installation will be in place no later than December 1993 at a cost of \$263,330.

To date, the Amoco riverfront lagoons have not been available for consideration for storage of Wood River's excess flows due to the fact that Amoco has not completed the closure operations of this hazardous waste surface impoundment in preparation for their use of the impoundment for storage of untreated non-hazardous wastes. The most recent data available to the City from Amoco indicates that closure activities will be completed and the lagoons fully available for use in January 1995. Also, the final Amoco riverfront water management system design relating to Amoco's use of the lagoons has not been completed by Amoco. Amoco has indicated that they will be working these final designs in 1993.

At the time the Pollution Control Board granted the temporary exception, they indicated the following relative to the treatment alternatives described in Petitioner's "Exhibit A" filed at the Public Hearing:

That CSO treatment alternative number 4 (treatment of first flush plus 12.5 times dry weather flow) and number 5 (complete sewer separation) were not justified economically.

 That their determination of the reasonableness of CSO treatment alternative number 3 (treatment of 12.5 times dry weather flow), would be based on consideration of the use of the Amoco lagoons in conjunction with this treatment alternative.

The purpose of the following engineering study is to address the issue of whether or not it is feasible and cost effective to utilize the Amoco lagoons for the capture of a portion of Wood River's Combined Sewer Overflows for subsequent secondary treatment at the Wood River Regional Wastewater Treatment Facility.

II. EXISTING CONDITIONS

A. Wood River 84-Inch Combined Sewer and Combined Sewer Overflow Facilities

The 84-inch diameter combined sewer outfall, intercepting and preliminary treatment facilities, and combined sewer overflow mechanically cleaned bar screen make up the facilities utilized by Wood River for combined sewer overflow transportation and treatment.

The location and configuration of these facilities is shown on Figure #1 attached to this report.

With the exception of a few separate storm sewer systems located within the Wood River Corporate limits which have independent outlets, all wastewater and storm water collected by the Wood River sanitary and combined sewers is discharged to the 84-inch diameter outfall sewer which is routed by gravity through a storm water pumping station and a Mississippi River flood protection levee owned and operated by the Wood River Drainage & Levee District. After the outfall sewer crosses under the levee it continues by gravity to the Mississippi and discharges to the river at elevation 402 MSL. When the river level exceeds elevation 402 it begins to submerge the 84-inch diameter outlet sewer. At river level 416 and above the 84-inch diameter sewer is blocked off from the River at the Levee District Pumping Station and overflows

in the 84-inch diameter sewer are pumped to the river at the Wood River Drainage & Levee District pumping station.

Due to the way in which the Levee District pumping station is constructed, the pumps cannot be started until the water level in the forebay reaches elevation 416. There are two reasons for this. First, the pumps are turbine type pumps and their setting elevation requires a submergence to elevation 416 for starting purposes.

Secondly, the pump station forebay does not have sufficient capacity to act as a wet well for the high capacity storm pumps and the additional needed capacity has to be provided by submerging the 84-inch diameter sewer upstream of the pumping station.

The Mississippi River level is below elevation 402 approximately 6 months per year. Information provided in the Flood Insurance Study for Madison County, Illinois indicates the following flood levels in the Mississippi River at the Wood River 84-inch diameter outfall (river mile 198):

10 year flood - 426 MSL 50 year flood - 434 MSL 100 year flood - 437 MSL

It is estimated that the 25 year flood level is 431 MSL.

The Levee District pumping station consists of five storm water pumping units, two at 13,500 gallons per minute and three at 30,000 per minute, making a total pumping capacity of 117,000 gallons per minute which is approximately the capacity of the 84-inch outlet sewer flowing full under "no head" conditions at the existing grade of 0.14% and "n" coefficient in the Manning formula of .012. Also a 3,000 gpm sewage pump is provided for pumping treated wastewater during blocked drainage. A flow at the pumping station in excess of 117,000 gpm, which may occur due to an extreme storm event, is provided for by an overflow flume at the Northeasterly comer of the pumping station. The flow in this flume is controlled by two sluice gates and an emergency

overflow weir having a crest elevation of 423.0 MSL and discharges into an adjacent impoundment area under the control of the Wood River Drainage & Levee District, which has a gravity outlet to the Mississippi River under normal river conditions.

The Amoco Petroleum Additives Corp. 72-inch diameter combined sewer, described in more detail later in this study, is routed adjacent to the Levee District pumping station and previously discharged to the pumping station during certain river stages. Due to a reconfiguration of the Amoco riverfront lagoons at the discharge end of the 72-inch combined sewer, all access to the pumping station for flows in the 72-inch combined sewer has now been blocked off and the sewer operates independently of the pumping station.

Approximately 650 feet upstream from the Wood River Drainage & Levee District pumping station a diversion structure is constructed in the 84-inch sewer containing a diversion dam with a crest elevation of 411.9 MSL which directs the "dry weather" flow and combined sewer overflows in the 84-inch sewer into a 24-inch diameter intercepting sewer and preliminary treatment structure with a capacity of 4.8 MGD (2.5 times dry weather flow) leading to the main sewage pumping station. From the pumping station the flow is pumped to the regional treatment plant and the treated plant effluent is returned to the forebay of the Wood River Drainage & Levee District pumping station through a 24-inch and 21-inch diameter gravity sewer for gravity discharge to the Mississippi River under normal river conditions and by pumping during high river stages. The flow line of the effluent sewer as it leaves the treatment plant is 424.2.

Inside the forebay of the previously described Wood River Drainage & Levee

District pumping station a mechanically cleaned bar screen is being installed to remove
floatables and trash from the 84-inch combined sewer overflow waste stream prior to
discharge to the Mississippi River during normal river stages. During high river stages
manually cleaned bar screens, installed ahead of the Levee District pumps, provides
screening for the combined sewer overflows.

The operations of the interception, overflow and storm water pumping facilities varies depending upon the stage of the Mississippi River. Following is a detailed description of each element of the facilities:

- 1. Interception Facilities: The previously described diversion dam in the Wood River 84-inch diameter combined sewer outlet and the 24-inch diameter interceptor sewer provide for the interception of dry weather flows and combined sewer overflows. The 24-inch diameter interceptor sewer discharges to the preliminary treatment facilities which consist of a mechanically cleaned bar screen and an aerated grid chamber. At the outlet of these facilities a broad crested weir has been constructed and a water level sensor has been installed. The sensor, in combination with a programmable controller, operates an electrically operated sluice gate at the inlet to the preliminary treatment facilities which acts to limit the interception of flows in the 84-inch sewer to 4.8 MGD maximum during storm events.
 This operation is constant irregardless of the river stage.
- 2. Overflow and Bar Screen Facilities: Overflows from the Wood River 84-inch diameter combined sewer which pass over the diversion dam are directed to the Mississippi River through the 84-inch diameter outlet sewer and the mechanically cleaned bar screen located on the downstream side of the Levee District pump station forebay. During high river stages the overflow is pumped to the river by pressurizing the 84-inch diameter outlet. A detailed description of the operation of these pumping facilities follows.

3. Pumping Facilities: The Wood River Drainage & Levee District owns and operates the storm water pumping station at Wood River as a part of their responsibility for interior drainage within the area of their levee protection. The Wood River 84-inch diameter outlet; and the treatment plant effluent sewer is channeled through the stations by gravity during normal river stages. During high river stages, through varying gating arrangements, the treated effluent and overflows are pumped through the station. Attached Figure #1 shows a schematic of the piping and gate locations at the pumping station. The pumping and gating arrangements used are determined by the river stages and are as follows:

Case 1 - River level below elevation 411.9, no rain: Both sewers have gravity flow. Gate 3, is closed. Gates 1 and 2 are open. Treated plant effluent discharges to the forebay of the pumping station and out the 84-inch diameter outfall to the river.

Case 2 - River level below elevation 411.9, rain: Gate positions are the same as in Case 1. Storm water overflow in the 84-inch diameter sewer flows by gravity to the river. No pumps are running.

Case 3 - River level between elevation 411.9 and 416. no rain: At elevation 411.9 the river level is backed up into the 84-inch diameter sewer to the level of the top of the dry weather flow diversion dam. Elevation 416 is the lowest elevation at which the Levee District pumps can be started. To prevent the river from backing over the diversion dam, Gate 2 is closed. Gate 2 has a large downstream opening flap valve incorporated in the gate. A rising river level acts to close the flap valve which prevents the river from backing into the 84-inch diameter sewer. Gate 3 remains closed. Gate 1 remains open. Remaining operation is same as Case 1. No pumps are running.

Case 4 - River level between elevation 411.9 and 416, rain: Gate positions are the same as in Case 3. Storm water overflow in the 84-inch diameter sewer acts to open the flap valve on Gate 2 when water level in 84-inch diameter sewer exceeds the river level. Overflow continues to river by gravity. Remaining operation is same as Case 2. No pumps are running.

Case 5 - River level above elevation 416, no rain: Gravity flow in the 84-inch diameter is now blocked. River is at or above the starting elevation for the Levee District pumps. Gates 2 and 3 remain closed and in addition, Gate 1 is closed. Pumps are now running to pump the treated effluent to the river via the pressurized 84-inch diameter outlet sewer. Pump design provides for an operating range of water levels in the forebay between elevation 422 and 414.6.

Case 6 - River level above elevation 416. rain: Gate positions are the same as in Case 5 and pumps are running. Storm water overflow in the 84-inch diameter sewer opens the flap valve on Gate 2 and the overflow is pumped to the river along with the treated effluent.

Note: Gate 3 is opened only in the event of a malfunction of the pumps at which time all flows into the forebay would be directed to the Impoundment Area. In the event a malfunction occurs when the station is unattended, an emergency overflow to the Impounded Area is provided at elevation 423.

Also, with Gate 3 open, excess water in the Impoundment Area can be pumped to the river during high river stages. Gates 4 and 5 are normally open. The function of these gates is to safeguard against a breach of the levee system through the 72-inch or 84-inch combined sewers during high river stages should there be a failure of the sewers under the levee or a failure of any upstream gates on the sewer systems.

A schematic flow diagram of the facilities described in this section is contained in Figure #1 attached to this report.

B. Amoco's 72-Inch Combined Sewer and Riverfront Lagoons

The Amoco 72-inch combined sewer, riverfront lagoons and appurtenances, make up the facilities utilized by Amoco Oil Co., to transport and store non-hazardous wastewater and storm water runoff from their Wood River plant for subsequent secondary treatment at the Wood River, Illinois Regional Wastewater Treatment Facilities via a wastewater pumping station known as the J-100 pumps located on the 72-inch sewer at the west side of the Amoco plant site.

The location and anticipated final configuration of these facilities is shown on Figure #1 attached to this report.

As previously stated, the riverfront lagoons will not be available in their final configuration until early 1995.

The wastewater flows from the Amoco Petroleum Additives Corp. (APAC) presently averages 2.2 MGD.

Storm water runoff into the 72-inch combined sewer, which is stored in the riverfront lagoons has been calculated by Consulting Engineers for Amoco Oil Co. as follows:

- 1. Maximum instantaneous flow rate = 165,000 GPM.
- Total runoff, 3-inch recurring rainfall = 15.37 MG.
- 3. Total runoff, 10 year frequency storm = 25.62 MG.

Runoff areas, and runoff volume percentage or coefficients used for the stormwater runoff calculation are as follows:

	Area/ <u>Acres</u>	Runoff <u>Coefficient</u>
APAC/Other Plant Areas	149.75	0.6
Temporary Surge Basin	4.50	1.0
Wood River POTW (North Portion)	4.32	0.6

In addition to the Amoco wastewater and storm water flows which can be directed to the riverfront lagoons, the City of Wood River, by contract with Amoco, can divert the entire wastewater flow entering its Regional Wastewater Treatment Facility into the riverfront lagoons during a shut down of the treatment facility for maintenance or repairs. A copy of the Amoco-Wood River operating agreement was attached to the Petitioners reply to the Pollution Control Board Interim Order of July 16, 1987.

This arrangement is necessary because the secondary portion of regional treatment facility and the Amoco pretreatment facility is served by single treatment units and therefore partially treated and untreated wastewater must be diverted to the riverfront lagoons through the Amoco 72-inch combined sewer whenever maintenance or repairs are required on any of these treatment units in order not to violate the NPDES permit for the facility. The permitted design flow through the Regional Wastewater Treatment Facility is as follows:

•	<u>Average</u>	<u>Peak</u>
Wood River Regional	2.5 MGD	6.2 MGD
Amoco	<u>2.6 MGD</u>	<u>3.6 MGD</u>
	5.1 MGD	9.8 MGD

The riverfront lagoons will consist of three ponds, the east surge pond, the west surge pond, and a small surge basin at the outlet of the 72-inch combined sewer as shown on attached Figure #1.

The east surge pond will be surrounded by a 100 year Mississippi River flood protection levee with a top elevation of 440 MSL. The pond will have a bottom elevation of 400 MSL and a maximum operating level of 421 MSL. The normal usable storage volume of the pond will be approximately 88 million gallons.

The west surge pond will not be protected from flooding from the Mississippi River during a 15 year or greater flood. The pond will have a top of dike elevation of 427 MSL, a bottom elevation of 416 MSL and a maximum operating level of 425 MSL. The normal usable storage volume of the pond will be approximately 78 million gallons.

The surge basin will also be surrounded by the flood protection levee and will have a maximum operating level of 421 MSL.

As previously stated, Amoco is presently finalizing its riverfront water management system design but it is anticipated that the operation will be as follows:

- 1. The surge basin will be retained to maintain sufficient submergence of the 72-inch combined sewer to allow the J-100 pumps to pump the stored wastewater from the riverfront lagoons to the Wood River Regional Wastewater Facility for treatment. The minimum pumping level for the J-100 pumps is 415 MSL. Flow from the 72" combined sewer will first be directed to the east surge pond which is protected by a flood protection levee.
- When the water level in the east surge pond is between 421 and 415 MSL, wastewater from the east surge pond can be returned by gravity to the J-100 pumps. When the water level in the east surge pond is below 415 MSL, Amoco will pump the wastewater from the east surge pond to the surge basin for return by gravity to the J-100 pumps.
- 3. If the water level in the east surge pond reaches 421 MSL, Amoco will lower the level by diverting wastewater to the west surge pond. If the water level in both the east and west surge ponds reaches 421 MSL, Amoco will pump the wastewater from the east surge pond to the west surge pond. To return wastewater from the west surge pond for treatment, Amoco will divert the wastewater to the surge basin for return by gravity to the J-100 pumps through the 72-inch combined sewer.

- Amoco will install two to four 1,000 GPM pumps at the riverfront lagoons to provide for the lagoon pumping described.
- 5. Flow to and from the riverfront lagoons through the 72-inch combined sewer will be totally isolated from the Wood River Drainage & Levee District pumping station rather than being tied to the District pumping station operation during high river stages as it has been in the past. This change has come about due to the construction of the flood protection levee around the east surge pond and the surge basin. The description of the pump and gate operation at the Levee District pump station as it relates to the 72-inch combined sewer as described in Joint Petitioners Exhibit C, Item 3, filed at the June 16, 1986 Public Hearing, no longer applies.
- 6. If the water level in the east and west surge ponds reach the maximum operating levels, Amoco will be required to open the Mississippi River discharge valve at the west surge pond and discharge to the Mississippi River under the conditions of their NPDES Permit for outfall 002.

A schematic flow diagram of the facilities described in this section is contained in Figure #1 attached to this report.

Varying wastewater and stomwater flow conditions will result in varying inflow into the riverfront lagoons. Also, varying conditions at the lagoon site will affect the normal usable storage capacity of the east and west surge ponds. Capacity calculations for the riverfront lagoons are shown on the following table, including summaries of the inflow variations and a matrix of possible site conditions together with the corresponding excess capacity of the ponds:

RIVERFRONT PROPERTY POND SYSTEM AVAILABLE CAPACITY AMOCO WOOD RIVER FACILITY

EXCESS STORAGE CAPACITY MATRIX IN MILLION GALLONS (MG)

STORAGE CONDITIONS	CASE N	UMBER:							
MATRIX	0	1	2	3	4	5	6	7	8
GW TO EL 404 AT MIN OPERATING LEVEL		10.91	10.91	10.91	10.91				
MAX RECENT RECORDED GWEL 407						23.63	23.63	23.63	23.63
NO APAC OR WOOD RIVER STP FLOW		0. 00		0.00		0.00		0.00	
APAC AND WOOD RIVER STP FLOW 28 DAYS MAX.			131.6	·	131.6		131.6		131.6
RAINFALL'S INCH RECURRING		15.37	15.37			15.37	15.37		
RAINFALL, 10-YEAR FREQUENCY		!		25.62	25,62			25.62	25.62
TOTAL RETENTION	0.00	26.28	157.88	36.53	168.13	39.00	170.60	49.25	180.85
AVAILABLE EXCESS STORAGE CAPACITY IN MG	166.7	140.42	8.82	130.17	(1.43)	127.70	(3.90)	117,45	(14.15)

INFLOWS:

GROUNDWATER SEEPAGE:

- GROUNDWATER ELEVATIONS VARY HISTORICALLY BETWEEN 388 AND 407 (REF. PART B).
- . BOTTOM OF POND SYSTEM IS MINIMUM 400.
- MINIMUM OPERATING ELEVATION IS 404 TO MAINTAIN 4 FT OVER BOTTOM LINER.
- AT HIGH RIVER ELEVATIONS (EL 423) SOME SEEPAGE MAY BE ANTICIPATED INTO THE ESP FROM THE WSP, BUT THIS IS ESTIMATED TO BE INSIGNIFICANT.
- MAX OPERATING ELEVATION OF 421 ON ESP AND 425 ON WSP PROVIDES 2 FT FREEBOARD REQUIRED BY RCRA.

25,62

APAC PROCESS AND WOOD RIVER STP FLOW:

 APAC AVERAGE DAILY FLOW RATE, MGD 	2.20
• STORM WATER TYPICAL FLOW RATE = .4 MGD (APAC CSO ONLY)	•
 TOTAL APAC FLOW RATES = 2.6 MGD 	
 WOOD RIVER STP DESIGN AVERAGE FLOW RATE, MGD 	2.50
RAINFALL/RUNOFF (APAC CSO ONLY):	
 RECURRING DESIGN STORM = 2 TO 3 INCHES 	15.37

• METCALF AND EDDY REPORT 10-YEAR, 24-HOUR STORM, 5 INCHES

NOTE: APAC = Amoco Petroleum Additives Co.

The calculations of reserve capacity based on varying inflow and site conditions reveal the following:

- There will be instances when the capacity of the east surge pond will be totally utilized and diversion to the west surge pond will be required.
- In three instances, the capacity of the east and west surge ponds will be
 exceeded and the river discharge valve at the west surge pond will have to
 be opened to allow the excess volume to be discharged to the Mississippi
 River.
- Both the east and west surge ponds are needed to store the design average flow from the Wood River Regional Wastewater Treatment Facilities for the anticipated maximum of 28 days.
- 4. When the Mississippi River level is at 425 MSL or above the west surge pond is not available for use and the usable storage capacity of the riverfront lagoons is reduced to 88 million gallons.

III. USE OF AMOCO LAGOONS IN CONJUNCTION WITH TREATMENT OF WOOD RIVER'S COMBINED SEWER OVERFLOWS

A. Study Requirements

As previously stated, in granting Wood River a temporary exception from the regulations for its combined sewer overflows, the Illinois Pollution Control Board directed Wood River to investigate the feasibility of the use of the Amoco lagoons for excess flow treatment. More specifically, the Board ruling stated that the investigation should be directed to the CSO treatment alternative that would provide treatment of 12.5 times dry weather flow. In granting the temporary exception, the Board agreed that the Petitioners had demonstrated that the other treatment alternatives were not justifiable.

A review of the data contained in the original Joint Petition, Public Hearing, and the replies to the Board's requests for additional information, including exhibits and attachments thereto indicated this information would be pertinent to this study except as updated in the preceding "Existing Conditions" Section of this investigation.

Therefore, this data was utilized in the investigation and where not referred to specifically, it is to be considered to be included herein by reference.

To complete this study it was necessary to develop a scheme whereby an additional 10 times dry weather flow (19.2 MGD) would be intercepted from Wood River's 84-inch combined sewer, transported to the Amoco lagoons for temporary storage and then directed to the Wood River Regional Wastewater Treatment Facilities for secondary treatment. It is noted that 2.5 times dry weather flow is already being intercepted from the combined sewer and transported to the wastewater treatment facilities for secondary treatment.

B. Required Facilities

Taking into consideration the arrangement of Wood River's existing 84-inch diameter combined sewer outfall and combined sewer overflow facilities, the point of interception of the additional 10 times dry weather flow must be downstream of the existing 24-inch interceptor and diversion dam and upstream of the forebay of the Levee District pumping station for the following reasons:

- To be effective and for the existing facilities to function as designed, the 2.5
 times interception must take place first.
- 2. During high river stages it would be impossible to intercept 10 times dry weather flow from the 84-inch diameter combined sewer downstream of Gate 2 (see Figure #1) in the forebay of the Levee District pump station.

The facilities needed to intercept the additional 10 times dry weather flow are the same as those now in place to intercept 2.5 times dry weather flow except that they

must have four times the capacity of the existing intercepting facilities and are as follows:

- A diversion structure constructed on the 84-inch diameter combined sewer containing a diversion dam to direct the CSO into an interceptor sewer.
- 2. An electrically operated sluice gate on the interceptor sewer with a sensor and programmable controller which will act to limit the interception of flows from the 84-inch sewer to 19.2 MGD maximum during storm events.
- 3. A 48-inch diameter interceptor sewer to convey the CSO away from the 84-inch diameter combined sewer for transportation to the Amoco riverfront lagoons. Flow in the interceptor will very from no flow to 13,333 gallon per minute (19.2 MGD).

In order to transport the additional 10 time dry weather flow to the Amoco riverfront lagoons a pumping station and force main would be required because of the following:

- The flow line elevation of the 84-inch combined sewer at the point of interception is approximately 410 MSL and the maximum operating level of the east and west surge ponds are 421 MSL and 425 MSL respectively (see Section II B of the report).
- 2. The Mississippi River flood protection levee, owned and operated by the Wood River Drainage & Levee District, is between the point of interception and the Amoco riverrent lagoons and cannot be breached.

The facilities needed to transport the additional 10 times dry weather flow to the Amoco riverfront lagoons are as follows:

 Pre-treatment equipment placed upstream of the pumping units consisting of a mechanically cleaned bar screen and grit removal equipment to protect the pumping equipment from damage, plugging and undue wear from the trash and grit that is carried in the CSO's.

- 2. A wet well and a minimum of two wastewater pumps each of sufficient capacity to pump up to 13,333 gallons per minute.
- Pump control equipment capable of controlling the pump operation so that flows varying from 0 to 13,333 gallons per minute can be accommodated at the pumping station.
- 4. A pumping structure of sufficient size and depth (ground surface at interception point is approximate elevation 430 MSL) to house the pre-treatment and pumping equipment and accept the intercepted flow by gravity.
- 5. A 36-inch force main approximately 1400 feet in length including boring under Illinois Route 3 and an over crossing of the Mississippi River levee to transport the flow from the pumping stations to the Amoco lagoons.
- 6. A lagoon discharge structure.

The location and configuration of the facilities described in this sub-section is shown on Figure #1 attached to the report.

C. Capability of Amoco Lagoons to accept excess flows from Wood River's Combined Sewers

In Section II B of this report an excess storage capacity matrix was developed for the Amoco lagoons based on various site and flow conditions relating to the lagoons when they are fully available for use in early 1995. The matrix shows that the excess storage capacity that would be available for other uses will vary from 140.42 MG down to no available excess storage capacity depending on site and flow conditions. The matrix as developed did not take into account any use by Wood River for storage of arry of its' CSO's. For the purposes of this study, the annual volume of CSO's to be considered would be that portion of the CSO's that make up 10 times dry weather flow.

Attached Tables 6 and 7, which were a part of Exhibit A filed with the Pollution Control Board at the Joint Petitioner's Public Hearing, present an estimate of the

number of overflow events with the capture of 2.5 and 12.5 times dry weather flow respectively. It is noted that the estimated number of overflow events per year would be reduced by 55 and the capture of an additional 134.7 MG annually would occur with the intercaption of an additional 10 times dry weather flow.

Based on the matrix of excess storage capacity developed, under four of the eight combinations of conditions there would be some available excess capacity in the Amoco riverfront lagoons to store Wood River's CSO's.

Since it is anticipated that there will be times when no excess storage capacity will be available in the lagoons, any consideration of the use of the Amoco lagoons to store Wood River's CSO must take into account the fact that prior commitments for the use of the lagoons must take precedence. This would necessitate an agreement with Amoco Oil Co. that when the excess capacity in the lagoons has been reduced to predetermined mutually agreeable volume, Wood River would stop directing its' excess flows to the lagoons until the agreed to excess capacity is restored.

IV. COST ESTIMATE

The estimated cost of the facilities necessary to intercept an additional 10 times dry weather flow in Wood River's combined servers is broken down as follows:

1,	Diversion Structure and Control Gate	\$ 170,000
2.	48-Inch Diameter Interceptor Sewer	45,000
3.	Pumping Station	
	a. Pumping Equipmentb. Preliminary Treatment Equipmentc. Structure, Piping and Electrical	318,000 290,000 513,000
4.	36-Inch Diameter Force Main	204,000
5 .	Discharge Structure	18.000
	Sub-Total	\$1,558,000
	Contingencies	155,800
	Total Estimated Construction Cost Engineering and Inspection Legal and Administrative	\$1,713,800 257,200 70,000
	Total Estimated Cost	\$2,041,000

. (1) EVENT NO.	(2) SURFACE RUNOFF PER EVENT (MGAL)	(3) SURFACE RUNOFF PER YEAR (MGAL)	(A) SANITARY FLOW PER EVENT (MGAL)	(B) TOTAL FLOW PER EVENT (MGAL)	(G) WASTE WATER IN FLOW (Z)	(7) PEAK RUNDEF PER EVENT (MGD)	(8) NO. OF DVER- FLOWS PER YR.	(9) DUR, DF CVERFLOW PRIR EVENT (HR)	(10) DUR. OF DVERFLOW PER YEAR (HR)	(11) VOL. OF OVERFLOW PER EVENT (MGAL)	(12) VOL. OF OVERPLOW PER YEAR (MCAL)	(13) BANITARY WASTE WATER LDST/YR (MGAL)	(14) COD LOST PER YR. (1000 LBS)	(15) TSS LOST PER YR. (1000 LBS)
ţ	0.09	o. 231	0.27	0. 26	75.0	1.3	٥	0.00	0.00	0.00	0.00	0.00	0.0	0.0
2	0.23	1.80	0.26	0.49	53.7	3. 2	8	0.49	3.42	0-00	0.03	0.08	0.1	0.1
⋾	0.35	2.12	0.29	0.65	45.3	4.5	e	1.39	s. ja	0.05	O. 30	0.14	0.7	1.1
4	0.53	4.81	0.32	0.86	37.8	6.3	Э	2.2t	19.86	0.16	1.42	0.54	3,4	5.4
,5	0.80	6.38	0.41	1.21	34.1	7.4	В	3.16	25.24	0.30	2.40	0.85	5.7	9.1
6	1.07	6.41	0.23	1.40	53.8	12.3	6	3.20	19.19	0.63	3.75	0.89	8.9	14.2
7	1.32	5.28	0.36	1.68	21.4	14.1	4	3.57	.14,29	0.84	3.34	0.71	7.9	12.7
ន	1.65	11.53	0.47	2,11	22.0	13.6	7	4.59	01.SE	1.02	7.16	1.58	16.9	27.1
9	1.92	5:75	0.52	2.44	21.4	14.1	3	5.18	15.55	1.22	3,65	0.78	8.6	13.8
10	2.21	6.62	0.25	2.56	13.6	24.3	Э	3.84	11.50	1.71	5.14	0.70	12.2	19.5
11	2.60	10.52	0.57	3.20	17.7	17.9	4	5.99	23.72	1.85	7.40	1.31	17.5	28.1
12	3.96	26.86	0.58	3.94	14.7	22.2	8	6,32	50.55	2.54	20.35	3.00	48.2	77.2
13	4.5급	22.61	0.74	5.26	.14.1	23.4	. 5	8.14	40,69	3.48	17.39	2.45	41.2	65.9
14	6.07	30.33	0.73	6.79	10.7	32.1	5	8.26	41.02	5,03	25.13	2.69	59.5	95.3
15	9.35	46.77	0,95	10.30	9.2	37.9	5	10.94	54.70	7.99	39.93	3.67	94.5	151.4
16	16.49	16.49	e0.t	17.57	6.2	58.3	1	12.91	12.91	14.90	14.90	0.92	35.3	56.5
TOTALS	5	205.09					85		,		152.29	20.22	360.5	577.6

AREA CONDITIONS		PROPOSED
DRAINAGE AREA		702 ACRES
IMPERVIOUS PORTION	45X 10F	DRAINAGE AREA
AVERAGE DWF		1.92 MGD
INTERCEPTING CAPACITY		4.80 MGD
N = INTER. CAP./AVE. DWF		2.50
RUNDER COEFFICIENT		0.75
RUNDER FACTOR		6.43
COD CONC. IN OVERFLOW		284 MG/L
TES CONC. IN DVERFLOW		455 MG/L

WOOD RIVER FACILITIES PLAN REPORT

WDOD RIVER COMBINED SEWER DISTRICT

CMT JDB ND. 8024-09

TABLE 7

(1) EVENT NG.	(2) EURFACE RUNOFF PER EVENT (MGAL)	(31) BURFACE RUNOFF PER YEAR (MGAL)	(4) BANITARY FILOW PER EVENT (MGAL)	(B) TOTAL FLOW PER EVENT (MGAL)	(6) Waste Water In Flow (2)	(7) PEAK RUNOFF PER EVENT (MGD)	(B) NO. OF OVER- FLOWR PER YR.	(9) DUR. OF OVERFILOW PER EVENT (HR)	(10) DUR. OF OVERFLOW PER YEAR (HR)	(11) VOL. OF OVERFLOW PER EVENT (MGAL)	(12) VOL. OF OVERFLOW PER YEAR (MGAL)	(13) SANITARY WASTE WATER LOST/YR (MGAL)	(14) COD LOST PER YR. (1000 LBS)	(15) TSS LOST PER YR. (1000 LBS)
1	0.09	O. D.t	0.27	0.26	75.0	1.3	b	0.00	0.00	0.00	0.00	0.00	0.0	0.0
æ	0.23	1.80	0.26	0.49	53.7	a. 1	٥	0.00	. 0,00	0.00	0.00	0.00	0.0	0.0
3	0.35	2.12	0.29	0,65	45.3	4.6	O	0.00	6.∞	0.00	0,00	0.00	0.0	0.0
4	0.53	4.B1	0. 32	0.86	37.8	6.3	0	0.00	0.00	0,00	0,00	0.00	0.0	0,0
5	0.80	6. 28	0.41	1.21	34.1	7.4	0	0.00	0.00	0.00	0.00	0.00	0.0	0.0
6	1.07	6.41	0.33	1.40	23.8	12.3	o	0.00	0.00	0.00	0,00	0.00	0.0	0.0
7	1.32	5.28	0. 30	1.68	21,4	14.1	0	0.00	0.00	0.00	0.00	0.00	0.0	-O.O
8	1.63	11.53	0.47	ື ຄ. 1 1	22.0	13.6	0	0.00	0.00	0.00	0.00	0.00	0.0	0.0
9	1.92	5.75	O. 62	2,44	21.4	14.1	0	0.00	0.00	0.00	0.00	0.00	0.0	0.0
10	2.21	6,62	0.35	2.56	13.6	24.3	3	0.40	1.19	0.02	0405	0.01	0.1	0.2
11	2.63	10.52	0.57	3.20	17.7	17.9	0	o. oo	0.00	0.00	0,00	0.00	0.0	0.0
12	3.36	26.86	0.58	3.94	14.7	22.2	8	0.04	0.32	0.00	0.00	0.00	0.0	0.0
13	4.52	22.61	0.74	5.26	14.1	23.4	5	0.52	a. 60	0.01	0.07	0.01	0.2	0.3
14	6.07	30*33	0.73	6.79	10.7	32.1	5	≥.83	14.14	0, 59	2, 94	0.31	7.0	11.2
15	9.35	46.77	0.95	jo.,30	ა.გ	37.9	5	4.95	24.73	1.63	8.16	0.75	19.3	30. 9°
16	16.49	16.49	1.09	17.57	6.2	58.3	1	8,43	8.43	6.36	6.36	0.39	15.1	24.1
TOTALS	3	205.09					27	•			17.59	1.48	41.6	66.7

AREA CONDITIONS			PRUPUSED
DRAINAGE AREA		4	702 ACRES
IMPERVIOUS PORTION	45%	ÜE	DRAINAGE AREA
AVERAGE DWF			1.92 MGD
INTERCEPTING CAPACITY			24.00 MGD
N = INTER. CAP./AVE. DWF			12.50
RUNDEF COEFFICIENT			0.75
RUNOFF FACTOR			6.43
COD CONC. IN OVERFLOW	•		284 MG/L
TSS CONC. IN OVERFLOW			455 MG/L

V

WDOD RIVER FACILITIES PLAN REPORT

WOOD RIVER COMBINED SEWER DISTRICT

CMT JOB NO. 8024-09

V. SUMMARY OF FINDINGS, CONCLUSIONS & RECOMMENDATIONS

A. Findings

The findings of this engineering investigation are as follows:

- Wood River presently intercepts and provides secondary treatment for up to
 2.5 times dry weather flow (4.8 MGD) from its combined sewers.
- By the end of 1993 Wood River will provide screening for removal of trash and floatables from all of its combined sewer overflows.
- 3. Amoco Oil Co. is in the process of completing the closure of its non-hazardous waste water facility at the Amoco riverfront lagoons. The lagoons will be fully usable for storage of wastewater by early 1995.
- 4. The maximum usable volume for storage of wastewater in the Amoco riverfront lagoons after completion of closure is approximately 167.6 million gallons. To fully utilize this volume, pumping to a surge basin at the site will be required.
- 5. Under certain flow and site conditions, the entire available storage capacity of the Amoco riverfront lagoons will be utilized for the purposes for which the lagoons are already committed leaving no excess capacity for other purposes.
- On the average, once every 10 years the west surge pond will be unavailable for storage due to high river stages.
- 7. In order to intercept and convey an additional 10 times dry weather flow in Wood River's combined sewers to the Amoco riverfront lagoons, the following facilities will have to be constructed:
 - a. A diversion structure
 - b. A 48" interceptor sewer
 - c. Screening and grit removal equipment
 - d. A 19.2 MGD capacity pumping station

e. A 36" diameter force main

The cost of these facilities is estimated to be \$2,041,000.

- 8. Based on the 1981 CSO study for Wood River, the capture of an additional 10 times dry weather flow in Wood River's combined sewers would result in a reduction of the annual overflow events by 55 and additional captures of 134.7 million gallons of CSO per year.
- 9. Based on the 1981 CSO study for Wood River, the capture of an additional 10 times dry weather flow in Wood River's combined sewers would result in a reduction of approximately 63,800# of BOD5 annually which be discharged to the receiving stream (Ref. Table 8, Joint Petitioners Public Hearing Exhibit A).
- 10. The Wood River sewer systems and the makeup of its users has not changed to any extent since the study of Wood River's CSO's was undertaken in 1981 and therefore the conclusions reached at this time are still valid, namely:
 - a. The Wood River combined sewer overflow has a negligible effect on the water quality of the Mississippi River both on a worst condition basis (10 year 7 day low flow in the river) and on an actual average basis due mainly to the diluting effect that the river has on the pollutants destroyed from the CSO.
 - Any improvement in the water quality of the Mississippi River achieved by further CSO treatment probably could not be detected by field testing.

B. Conclusions

 The high cost of the facilities necessary to intercept and convey an additional 10 times dry weather flow from Wood River combined sewers to the Amoco riverfront lagoons coupled with the limited ability for the Amoco

Los of pm-estive WOOD RIVER Accordance SCHEMATIC FLOW DIAGRAM TODO MADA TRELAMBERY TREASFANT FACELERS ACCOUNT OF THE STATES SAND 100 ₫. PIPE TUNNEL (1) set overton & 35" ethillen (humed) — rege above elev. 415.0
(2) ovilet (drawtt) — rege brone elev. 416.0
(3) ovilet (presserves) — rege above elev. 416.0 # SURGE BASIN MACHINE MACHIN MACHINE SEWER WLET CLOSED DISPOSAL FACILITY POND I LEGEND - POIND INTERCONNECTING PIPING

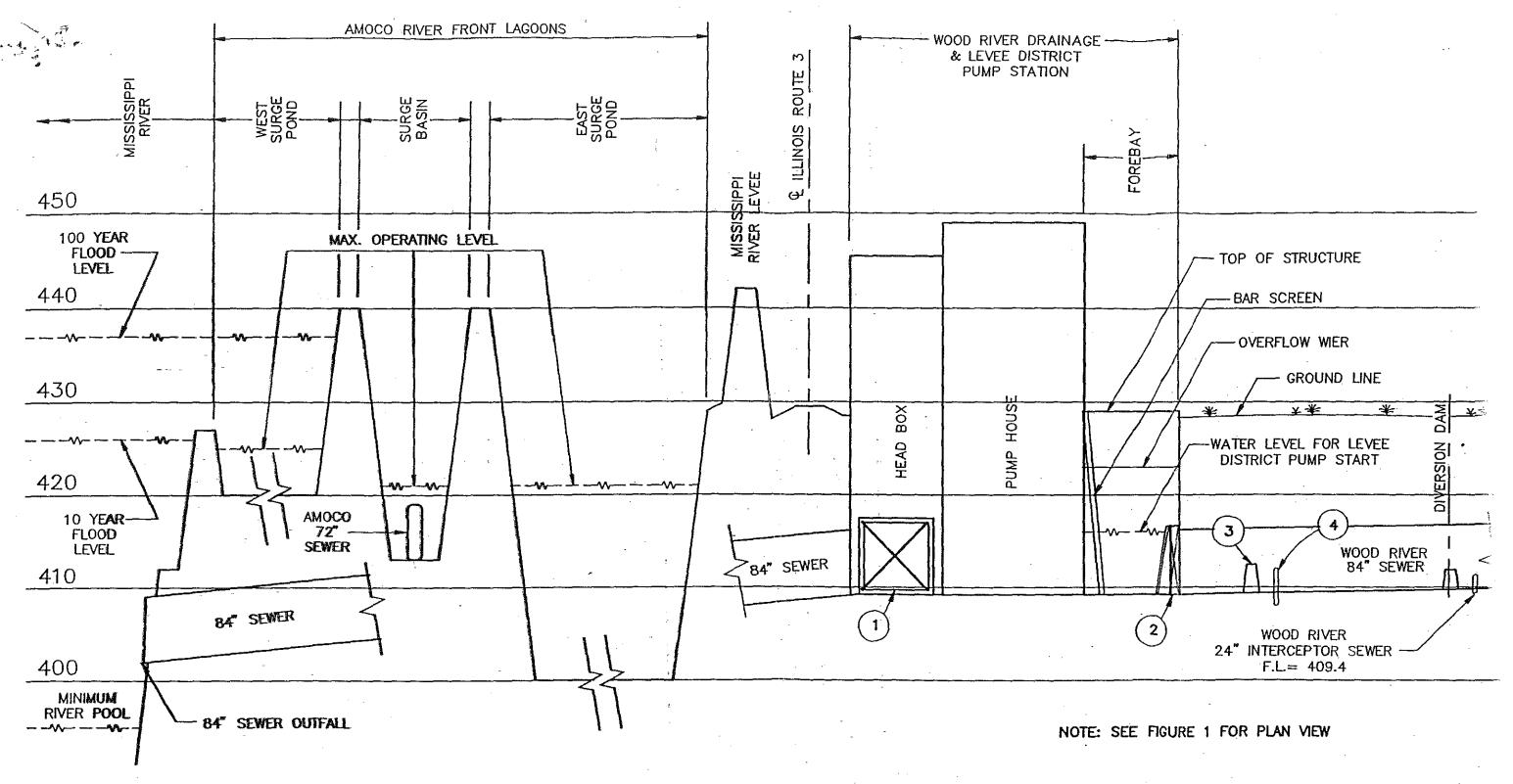
(a) - (a) are one case, edge, edge one
(b) - (a) are one case, edge, edge one
(c) - (a) are one case, edge, edge
(c) - (a) are one case, edge, edge
(d) - (a) are one case, edge, LEGEND - FACILITIES REQUIRED TO INTERCEPT & TRANSPORT WOOD RIVER'S CSO'N TO THE AMOCO RIVERFRONT LAGGONS (i) - OMDISION STRUCTURE
(i) - OF INTERCOPTOR SONCE
(ii) - PRUMBING STRUCTURE
(iii) - OKSCHANCE STRUCTURE EAST SURGE POND (ESP)

BOTTOM RLEK-400.00

MAX OPERATING ELEK-421.00 AMOCO RIVERFRONT LAGOON SITE --PONG 3 TOP EL - 440.88 WHENE DISCHARM **9010** FLOOD PROTECTION LEVEE
(WOOD RIVER DRAINAGE & LEVEE DISTRICT) HAY PERATING ELEVIAGOO WEST SURGE POND MISSISSIPPI RIVER PERMITTED HONHAZARDOUS STEK + 427,00 EL. 440,00 DIKE WOOD RIVER, ILLINOIS / AMODO DIL CO.
RIVERFRONT WASTE WATER TREATMENT
AND COMBINED SEWER OVERFLOW FACILITIES Sheppard, Morgan & Schwaab, Inc.

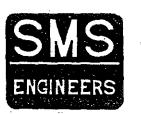
4

20



- (1) 84" SLUICE GATE
- 2 84" SLUICE GATE WITH INWARD OPERATING 5"-7" X 3" FLAP GATE
- DIVERSION DAM REQUIRED TO INTERCEPT AN ADDITIONAL 10 TIMES DRY WEATHER FLOW
- 48" INTERCEPTOR SEWER REQUIRED TO INTERCEPT
 AN ADDITIONAL 10 TIMES DRY WEATHER FLOW

WASTEWATER FACILITIES PROFILE
WOOD RIVER, ILINOIS — AMOCO OIL CO.
WOOD RIVER DRAINAGE & LEVEE DISTRICT
NO SCALE
JUNE 1993



Sheppard Morgan & Schwaab, Inc.
Consulting Engineers & Land Surveyors
215-Market Street
Alton, Illinois 62002 Phr 618-462-9755
10 Central Industrial Dr. Granite City, IL 62040 Phr 618-677-8700
423 Jackson Street
St. Charles, NO 63301 Phr 314-948-7555

APPENDIX Q

Option I.A.: Madison Avenue Area Sewer Separation Analysis

CITY OF WOOD RIVER CSO LTCP Alternative I.B. Madison Avenue Sanitary/Storm Sewer Separation

OPINION OF PROBABLE CONSTRUCTION COSTS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	INSTALL. or SUB. OH&P	SubTotal
18" Reinforced Concrete Pipe	LF	12007	\$65	1.00	\$780,455
24" Reinforced Concrete Pipe	LF	740	\$75	1.00	\$55,500
Connection of 18" and 24" Sewer	LS	1.0	\$3,800	1.00	\$3,800
Manholes	EA	28	\$1,800	1.00	\$50,400
Excavation (18" sewer)	CY	11107	\$19	1.00	\$211,027
Excavation (24" sewer)	CY	294	\$19	1.00	\$5,595
Granular Backfill	CY	1556	\$39	1.00	\$60,684
Road Crossings (Remove & Replace)	LF	902	\$90	1.00	\$81,180
Highway Crossing	ĹF	165	\$300	1.00	\$49,500
Inlet Connection	EA	60	\$1,010	1.00	\$60,600
Site Restoration	LS	1	\$18,000	1.00	\$18,000
			Sub-Total:	=	\$1,376,741
	į	Co	ntingency (20%	%)	\$275,348
			TOTAL:	_	\$1,652,089

Rational Method -- Stormwater Runoff Entering Combined Sewers

Q=API

where

Q = runoff (cu.ft./s)

A = Area (Acres)

I = Avg. Intensity of rainfall (in/hour)*

*Note: used one-hour three-month rainfall intensity= 0.81 in/hr.

P = runoff factor based on degree of perviousness

Туре	Area	P Value	Q
Buisiness	13.	3 0.7	7.82

Total runoff removed from system:

0.21 MG

APPENDIX R

2002 Horner & Shifrin, Inc.
Study of Central & Hawthorne Area Flooding

INTRODUCTION

The City of Wood River is seeking assistance from the Illinois Department of Natural Resources to solve a long-time flooding problem in the vicinity of Central and Hawthorne Streets. To receive funding, IDNR requires an engineering and economic study to support the grant application. The study requires analysis of:

- Economic Impacts
- Feasibility of proposed alternative(s)
- Cost of Engineering

In order for IDNR to fund any project, the study needs to demonstrate that the cost of the project is reclaimed with the desired benefits. If it is determined that the benefit/cost (B/C) ratio of the project is greater than 1.0, IDNR can fund the project in its entirety, excluding any right-of-way acquisition and property buyouts. If the B/C ratio is less than 1.0, IDNR will fund a proportional amount of the project; i.e., if B/C = 0.4, IDNR can fund 40% of the project.

This report follows an outline submitted to Mr. Arlen Juhl of IDNR. In a subsequent telephone conversation Mr. Juhl emphasized that the report should contain a clear statement of the problem along with the damage history, not just insurance claims because flood damages are often unreported. He also stated that the hydrologic and hydraulic report should include damage for the full range of several design storms.

Description of planning area

The planning area encompasses approximately 13 city blocks in the southeast section of the City. The area is bounded on the north by Lewis Avenue and on the south by Tennyson Avenue. The east and west boundaries are 9th Street and 14th Street, respectively. The area is primarily residential, with some commercial property along Central Avenue (Illinois State Route 111). There are approximately 300 buildings within the planning area.

The topography of the area is extremely flat. Runoff generally flows towards a depression near the center of the site in the area of the intersection of Central and Hawthorne Avenues.

During the initial investigation, the Flood Insurance Rate Map (FIRM) for the City of Wood River was examined and it was discovered that this area had recently been removed as a "B" zone flooding area from the original map. Further investigation revealed that the City had requested a Letter of Map Revision (LOMR) after they had built a large detention basin northeast of Avalon and Harrison to relieve flooding in the vicinity of IL 143. It was suspected that the "B" zone around Hawthorne and Central hadn't changed, but had not been examined since it was annotated as being beyond the "limit of detailed study".

A meeting with IDNR (June 3, 2002) confirmed that the LOMR was not meant to affect the Central/Hawthorne planning area. It was stated that there was no overland flow to this site from the areas previously studied by IDNR and that modeling done as part of this study would be the determinant of flooding in the area.

Purpose and Scope of report

The purpose of this report is to examine various alternatives to solve the flooding problem in the Central/Hawthorne section of the City of Wood River and to provide cost estimates for the recommended alternative. The report will also ascertain the economic benefits of solving the problem and provide a benefit/cost analysis to assist IDNR and the City in assessing this problem.

Brief Summary of Conclusions and Recommendations

The recommended alternative is to create local detention and provide residents with floodproofing improvements to property. The size of detention basin to construct depends greatly on the city's wishes and the cooperation of residents. Five sizes of detention basins were evaluated for comparison. The smallest basin considered, 2.6 acre-feet, provided minimal flood relief and is omitted from the following table.

Table 1 - Benefit/Cost Ratios

Detention Basin Alternative (ac-ft)	Estimated Construction and Operating Costs	Calculated Annual Benefit	Present Value of Benefits (40 yrs.@6%)	Benefit/Cost Ratio
6.4	\$1,539,412	\$338,522	\$5,093,503	3.31
12.8	\$2,568,995	\$382,237	\$5,751,244	2.24
19.3	\$3,588,752	\$539,314	\$8,114,684	2.26
32.1	\$5,627,920	\$597,528	\$8,990,584	1.60

As shown, the basin with the highest benefit/cost ratio is the 6.4 acre-feet basin. According to the HEC-1¹ computer simulation using rainfall from Bulletin 71² performed for this study, this alternative would eliminate flooding of 76 homes during a 1-year storm event, 26 homes during a 2-year event, and 9 homes during the 5- and 10- year events. This solution would require the buyout of approximately 4 homes to construct the detention basin.

¹ U.S. Army Corps of Engineers, Hydrologic Engineering Center. HEC-1 Flood Hydrograph Package,

² Bulletin 71 Rainfall Frequency Altas of the Midwest, Huff and Angel. Illinois State Water Survey, 1992.

DESCRIPTION OF EXISTING CONDITIONS

Area Population and Land Use

The City of Wood River is located approximately 15 miles northeast from downtown St. Louis, Missouri in Madison County, Illinois. Wood River with more than 11,490 residents is one of many small communities that make up what is known as the River Bend region and its more than 200,000 residents. The study area is in the southeastern section of the City and is primarily residential.

Past History of Flooding in Area

Interviews with City officials and local residents indicate that the area has been prone to flooding since it was developed. The first homes in the neighborhood were built in the 1930's with the area completely built out by the early 1950's.

Mitigative Measures by City

The City public works department performs maintenance on the existing sewer system to maintain its efficiency. However, the City has lacked the funds to undertake the large capital expense required to completely solve this flooding problem. When the area does suffer flooding, various City departments including public works, fire, and police are summoned for traffic control and other assistance as needed.

Description of Area Drainage System

The area is served by a combined sewer system. Runoff generally flows to the north through two main trunk sewers. Generally, the areas along Central Avenue and streets west, flow into a 42" sewer that runs under 10th Street and streets east of Central flow into a 30" sewer that runs under 12th Street. Inlets are located on most of the street intersections in the study area, and tributary sewers range in size from 8" to 21" diameter.

Statement of Current Problem

Initial interviews with City staff indicate that over 100 homes are flooded during a "typical" flooding event. Residents in the area are victims of basement, first-floor, and garage flooding. In addition to home flooding, the following street intersections are inundated and are impassable: Central and Hawthorne; Central and Esther; Central and Lewis; Esther at 12th, 13th, and 14th Streets, and Hawthorne at 10th, 12th, and 13th Streets. Central Avenue is a main north-south artery and when it is closed, vehicles make detours through adjacent residential areas causing "wakes" that further compound the flooding problem. Additionally, City employees are frequently required to work overtime to close roads, direct traffic, and clean-up after the flood waters have receded.

Table 2 lists the number of properties flooded during various storm events as those located where the ground surface lies below the flood elevations calculated by HEC-1 computer modeling.

Table 2 - Planning Area Flooding

		Storm Event						
	1-yr.	2-yr.	5-yr.	10-yr.	25-yr.	50-yr.	100-yr.	
homes flooded > 1'	10	22	36	93	150	210	226	
homes flooded < 1'	78	84	94	45	114	72	66	
total homes flooded	88	106	130	138	264	282	292	

Past History of Property or Other Damage

Area residents that responded to a City questionnaire indicated damages to home exteriors and interiors, including furniture, carpets, furnaces, and other personal property. Several residents also experienced damage to their automobiles. (NOTE: It is assumed for purposes of this analysis that the reported losses were for a single flooding event.) A statistical analysis of the reported damage losses indicates that the average loss per flood event (excluding automobiles) is approximately \$2,700. Furthermore, within the 95% confidence level it is estimated that the lower and upper limits of a typical damage amount are \$1,630 and \$3,850 respectively. As to auto damages, the average loss is approximately \$660 per vehicle. Furthermore, within the 95% confidence level it is estimated that the lower and upper limits of a typical automobile damage amount are \$345 and \$975. The statistical analysis is attached in the appendix.

For the purposes of this study, the upper limits of damages have been used to calculate the benefits of the proposed project. The upper limit is justified because in flooding situations similar to the one in Wood River, flooding damages often go under- or unreported. Many residents fear a loss of property value if they accurately report flood losses.

EVALUATION OF EXISTING CONDITIONS

Hydraulics and hydrology for planning area:

The project location is a low-lying area between two sizeable drainage areas to the northwest and southeast (see figure in Appendix). The adjacent tributary areas have few storm sewer inlets and thus most runoff must be handled after it collects in the study area. The conveyance system in the study area is quickly overwhelmed by the runoff and the sewers thus backup through the inlets to aggravate the reported flooding.

Of the two tributary areas, the area to the northwest of the project area has the lesser impact as it contains some stormwater inlets to accept runoff before it

reaches the study area. However, because these sewers are a part of the same network of combined sewers as in the study area, the flow taken in at the upstream structures further inhibits the downstream capacity of the pipes. The northwest drainage area covers approximately 0.16 square miles and is entirely developed by single family homes on quarter-acre lots.

The tributary area to the southeast of the study area has a more significant effect. Although some of this area is undeveloped or park land and thus produces less runoff, 40% is still made up of single family homes and industrial area. The drainage area is not served by a stormwater collection system of any nature and thus all runoff is carried overland into the study area. This drainage area is estimated at 0.67 square miles mostly outside the Wood River City Limits.

The project area itself has 0.24 square miles of contributing surface area, as defined by the 440.0 elevation contour. All of the project area is developed with single family homes on quarter-acre lots. Thirty-nine curb inlets (approximate total capacity of 66.7 cfs) are available in the study area to accept the runoff from the project area as well as the two outlying tributary areas.

The runoff that is accepted through the inlets travels out of the project area through the combined sewer. All other runoff is trapped within the project area. The sewer system has an estimated capacity of only 43.0 cfs (assuming 42" and 30" sewer mains at 0.90% slope, based upon being equivalent to the ground slope). This capacity neglects the requirements of any wastewater which may contribute to the combined sewer system during a flood event.

Based on these features a simplified HEC1 hydrologic model was assembled to simulate a flood event. No hydraulics were modeled as not enough information was available to create a relevant model. Initial models attempted to capture the complexity of the actual system; however they were not effective in reproducing the effect of the simultaneous overland and conduit flow. Insufficient data was available to reflect the actual system, which is too intricate to be handled properly by either HEC-HMS or HEC1. The following assumptions were made to simplify the hydrologic model and allow it to provide useful output data:

- 1. Runoff flows overland into the study area.
- 2. The northwest and southeast tributary areas have one hour of lag time.
- 3. Flow equivalent to the capacity of the out-lying inlets is diverted away from the study area into the sewer network.
- 4. The study area is a reservoir with an outflow equivalent to the capacity of its inlets. This is assumed independent of head although in reality the head over an inlet will affect its capacity. A head of ten inches (just flooding the top of curb) was assumed for all inlet capacity calculations.
- 5. "Reservoir" water elevations greater than 440.0 were assumed to flow out of the reservoir freely, reflecting overland conveyance out of the study area.

- 6. All flow into the sewer is conveyed out of the model and does not cause back up. This may somewhat understate flooding as it is possible that the sewer cannot convey the assumed flow (described in the discussion of the sewer hydraulics above). Not enough information was available, however, to accurately reflect the sewers' behavior.
- 7. The "reservoir" water elevation is the flooded elevation in the study area.

The flows calculated by HEC1 for the existing condition area are shown in Table 3. Note that the "Max. Into Study Area" is not the sum of the peak flows from the three individual tributary areas because of the travel delay for the NW and SE areas. This maximum is the flow for which any mitigative measure should be designed.

Table 3 – Existing Condition Runoff (Flows in CFS)

	1 YR	2 YR	5 YR	10 YR	25 YR	50 YR	100 YR
NW Area (w/o inlets)	55	76	106	130	177	218	262
SE Area (w/o inlets)	122	188	294	385	565	726	905
Study Area (w/o inlets)	328	446	619	759	1024	1253	1499
Max. Into Study Area	328	452	643	800	1101	1366	1653

Analysis of Economic Damage

(Note: All damages, costs, and benefits are expressed in constant 2002 dollars)

In addition to the property and automobile damage explained in the section, "Past History of Property or Other Damage", costs are also incurred by the City when overtime hours are required to deal with flooding situations. Frequently City police, fire, and public works employees are called upon to close roads and direct traffic when roads are flooded. Additionally, public works employees have clean-up duties after the flood waters have receded. City records indicate that these costs can run as much as \$1,000 to \$2,000 per flooding event.

For the purposes of this study, we assigned overtime expenses (damages) as follows:

- \$1,000 for 10 to 100 homes flooded
- \$1,500 for 101 to 200 homes flooded
- \$2,000 for 201 to 300 homes flooded

Table 4 lists the damages during a range of design storms.

Table 4 – Flooding Damages, Existing Conditions

Return Interval (yrs.)	Recurrence Frequency	Elev.	Homes Flooded	Autos Flooded	Inundation Damages	Avg. Annual Damages
0.5	2.000	435.0	0	0	\$0	\$0
1	1.000	436.0	88	88	\$425,600	\$212,800
2	0.500	436.3	106	106	\$512,450	\$234,513
5	0.200	436.7	130	130	\$628,750	\$171,180
10	0.100	437.2	138	138	\$667,350	\$64,805
25	0.040	438.0	264	264	\$1,275,800	\$58,295
50	0.020	438.4	282	282	\$1,362,650	\$26,385
100	0.010	438.8	292	292	\$1,410,900	\$13,868
			Total Avg. A	nnual Floo	ding Damage	\$781,844

Inundation damages include overtime costs incurred by the City plus the number of homes flooded times \$3,850 per home and autos flooded times \$975 per auto

IDENTIFICATION OF IMPROVEMENT ALTERNATES

Alternative A – Pump to Regional Detention Basin

This alternative considers constructing a pump station at the flooded location to pump stormwater offsite. The stormwater would be collected and stored in a regional detention basin preliminarily placed between 9th Street and Norht Berry Lane north of Harrison. At least one home would need to be bought to provide property for the pump station.

Alternative B – Gravity Discharge Through BP Amoco Property

Alternative B suggests transporting the excess runoff by gravity across the BP Amoco Property to the Mississippi River, a 7500 foot alignment. Although the final 5400 feet can be easily acquired from Amoco and has few restrictions, the upstream 2100 feet is fully developed residential property and presents numerous potential complications. Stormwater could be carried through enclosed pipe, open channel, or a combination of the two options.

Alternative C - Create Local Detention System

This alternative involves buying out homes to use the land for a local detention system and supplementing the detention with floodproofing. One lot is approximately 120 feet by 50 feet with a small alley through the center of each block. Aerial photography shows that some home sites are larger than this lot size and still others appear to be undeveloped. The location of a detention basin can vary considerably to minimize property acquisition costs. Due to the large volume of storage required to reduce flooding in the project area, at least two

homes will need to be acquired, however, to provide enough land for an effective detention basin.

A detention basin in itself will not alleviate all flooding; however, it can lower the depth and extent of flooding. Floodproofing will lessen damage due to residual flooding. In particular, driveway berms, glass block basement windows, and watertight doors are recommended.

ANALYSIS OF IMPROVEMENT ALTERNATES

Alternative A – Pump to Regional Detention Basin

In order to pump the stormwater to an offsite detention basin the pump station would be required to pump at the peak rate of inflow. This flow rate varies dependent on the design storm chosen, but for a 5 year return frequency storm a design flow of 643 CFS (288,578 GPM) would need to be handled. To pump such a large flow while limiting velocity to 10 feet per second, a 108-inch diameter force main would be required with a net pumping capacity of at least 3100 horsepower, plus backup. Assuming 75 per cent efficiency, the power requirement would be over 3100 Kw., making the cost of controls, power supply, and even utility charges for "aid to construction" significant additions to the capital cost. Design for still larger storms would be proportionately larger. The magnitude of these figures made it apparent that this project would be cost prohibitive and the alternative did not bear detailed examination. Assumptions and calculations for this alternative are attached in the appendix.

Alternative B – Gravity Discharge Through BP Amoco Property

Gravity discharge of the stormwater through the BP Amoco Property to the river was evaluated with a trapezoidal channel and then with pipe. A channel was sized at a top width of approximately 40 feet, with 3:1 (horizontal to vertical) side slopes with a range of bottom widths from 2 feet to 10 feet. The open channel was not evaluated any further than this however, due to the large area that it would occupy in the 2100 foot long reach through dense residential neighborhood displacing approximately 18 homes and requiring construction of at least six bridges or large culverts. A 9-foot diameter storm sewer was also evaluated in place of the open channel. The alignment could travel under Hawthorne Road and would thus avoid buyout of so many homes required for an open channel. Even reduced property costs however, the project would require major utility relocations. Altogether this alternative with a pipe remains uneconomical; the preliminary estimated cost for the project is over \$18 million dollars. Assumptions and calculations for this alternative are attached in the appendix.

Alternative C – Create Local Detention System

A detention basin was evaluated as Alternative C. Significant storage volume is required to contain even a one year frequency event and thus some flooding will still occur with detention basin. The extend and depth of that flooding would be reduced with the construction of a storage facility. Damage from the surplus stormwater would be minimized with floodproofing. The required storage and resultant flood elevation for a range of storms is shown in the following table. Note that the low ground elevation in the study area is 435.00. As for the other alternatives, the assumptions and calculations for this alternative are attached in the Appendix.

Table 5 – Storage Required to Contain Total Runoff

	1 YR	2 YR	5 YR	10YR	25 YR	50 YR	100 YR
Storage Required (ac-ft)	12	25	48	70	116	158	207

Description of Recommended Alternative

The recommended alternative is to create local detention and provide residents with floodproofing improvements to property. The size of detention basin to construct depends greatly on the city's wishes and the degree of support by residents. Five sizes of detention basins were evaluated for comparison.

All basins were preliminarily sized at 10 feet deep. This assumption most likely requires a small pump station into the gravity combined sewer system. In addition sewer and inlet construction and rehabilitation will be required to convey runoff into the basin efficiently.

Floodproofing of homes affected by overland flooding could entail the construction of small berms or the installation of watertight windows or doors. The particular method required to floodproof each home would be determined by an investigation of each individual property that is beyond the scope of this report. Note that floodproofing of those homes flooded by sewer backups is not part of this project and is not considered in the economic analysis.

Hydrologic modeling of the detention basins resulted in flood elevations as shown in Table 6.

Table 6 – Expected Flood Elevations with Detention

	1 YR	2 YR	5 YR	10YR	25 YR	50 YR	100 YR
Flood Elevation w/o Detention	436.03	436.28	436.74	437.17	438.02	438.40	438.83
Flood Elevation w/ 2.6 ac-ft Detention	435.77	436.20	436.65	437.07	437.94	438.35	438.78
Flood Elevation w/ 6.4 ac-ft Detention	435.43	436.11	436.57	436.98	437.85	438.31	438.74
Flood Elevation w/ 12.8 ac-ft Detention	N/A	435.88	436.42	436.84	437.71	438.25	438.67
Flood Elevation w/ 19.3 ac-ft Detention	N/A	435.39	436.29	436.71	437.58	438.18	438.61
Flood Elevation w/ 32.1 ac-ft Detention	N/A	N/A	436.02	436.44	437.31	438.06	438.49

Table 7 shows the number of homes and autos flooded during a range of design storms for future conditions with proposed detention basins of 6.4, 12.8, 19.3, and 32.1 acre-feet to help mitigate the flooding problem.

Table 7 – Average Annual Damages w/ Mitigation Alternatives

	6.4 acre-feet detention basin						
Return Interval (yrs.)	Recurrence Frequency	Homes Flooded	Autos Flooded	Inundation Damages	Avg. Annual Damages		
0.5	2.000	0	0	\$0	\$0		
1	1.000	12	12	\$58,900	\$29,450		
2	0.500	80	80	\$387,000	\$111,475		
5	0.200	121	121	\$585,325	\$145,849		
10	0.100	128	128	\$619,100	\$60,221		
25	0.040	260	260	\$1,256,500	\$56,268		
50	0.020	282	282	\$1,362,650	\$26,192		
100	0.010	292	292	\$1,410,900	\$13,868		
	total avg. annual property damage \$443,322						
	12.8	3 acre-feet d	letention ba	sin			
Return					Avg.		
Interval	Recurrence	Homes	Autos	Inundation	Annual		
(yrs.)	Frequency	Flooded	Flooded	Damages	Damages		
0.5	2.000	0	0	\$0	\$0		
11	1.000	10	10	\$49,250	\$24,625		
2	0.500	70	70	\$338,750	\$97,000		
5	0.200	106	106	\$512,450	\$127,680		
10	0.100	138	138	\$667,350	\$58,990		
25	0.040	226	226	\$1,092,450	\$52,794		
50	0.020	282	282	\$1,362,650	\$24,551		
100	0.010	292	292	\$1,410,900	\$13,868		
		total avg.	annual prop	erty damage	\$399,508		

Table 7 (continued)

	19.3 acre-feet detention basin						
Return Interval (yrs.)	Recurrence Frequency	Homes Flooded	Autos Flooded	Inundation Damages	Avg. Annual Damages		
0.5	2.000	0	0	\$0	\$0		
1	1.000	0	0	\$0	\$0		
2	0.500	12	12	\$58,900	\$14,725		
5	0.200	106	106	\$512,450	\$85,703		
10	0.100	130	130	\$628,750	\$57,060		
25	0.040	200	200	\$966,500	\$47,858		
50	0.020	272	272	\$1,314,400	\$22,809		
100	0.010	287	287	\$1,386,775	\$13,506		
total avg. annual property damage \$							
					<u> </u>		

	32.1 acre-feet detention basin								
Return Interval (yrs.)	Recurrence Frequency	Homes Flooded	Autos Flooded	Inundation Damages	Avg. Annual Damages				
0.5	2.000	0	0	\$0	\$0				
1	1.000	0	0	\$0	\$0				
2	0.500	0	0	\$0	\$0				
5	0.200	88	88	\$425,600	\$63,840				
10	0.100	106	106	\$512,450	\$46,903				
25	0.040	160	160	\$773,500	\$38,579				
50	0.020	264	264	\$1,275,800	\$20,493				
100	0.010	282	282	\$1,362,650	\$13,192				
	total avg. annual property damage \$183,006								

inundation damages include overtime costs incurred by the City plus the number of homes flooded times \$3,850 per home and autos flooded times \$975 per auto

Estimated Value of Benefits From Improvement

The estimated benefits for the proposed alternatives are calculated as the reduction in damages resulting from the construction of the project. That is the difference between the calculated average annual damages for the existing conditions and the average annual damages after the project is completed. Those results are shown on the following table.

Table 8 – Benefits of Improvements

Detention Basin Alternative (ac-ft)	Existing Damages (no project)	Future Damages (w/ project)	Average Annual Benefits
6.4	\$781,844	\$443,322	\$338,522
12.8	\$781,844	\$399,508	\$382,337
19.3	\$781,844	\$241,660	\$540,184
32.1	\$781,844	\$183,006	\$598,838

Estimated Cost of Construction and O&M For Improvement

The estimated cost of construction and operations and maintenance varies based on the size of detention basin chosen. Construction costs were estimated based on a detention basin with 3:1 sloping sides, a cover, and a small pump station. All detention basins were assumed to be 10 feet deep which at this time appears possible although the assumption may need to be re-evaulated during design. In addition, new sewers were assumed for 2 blocks south and west to capture runoff. Operations and maintenance costs were figured for the 2.6 ac-ft basin and the 32.1 ac-ft basin; Costs for the intermediate basins were interpolated from the calculated costs. A summary of the expected costs is shown in Table 9 while the detailed cost estimates are in the Appendix.

Table 9 – Probable Cost of Construction and O&M for Improvement

Volume of Detention Basin	Construction Cost (Year 2002 \$)	O & M Cost (annual cost)	Total Cost (Year 2002 \$)
2.6 ac-ft	\$686,069	\$5,291	\$765,677
6.4 ac-ft	\$1,463,200	\$5,730	\$1,549,412
12.8 ac-ft	\$2,471,662	\$6,469	\$2,568,995
19.3 ac-ft	\$3,480,124	\$7,220	\$3,588,752
32.1 ac-ft	\$5,497,049	\$8,698	\$5,627,920

ASSESSMENT OF ENVIRONMENTAL IMPACT OF IMPROVEMENT

Only the broadest description of environmental impacts can be rendered in a preliminary study of this scope. However, two considerations are apropos and can be addressed in narrative comparisons without sophisticated analysis.

- 1. The impact each alternative would have in terms of home displacement, disruption, relocation or intensification of infrastructure, and area of land disturbance:
- A: <u>Pump to regional detention basin</u>. The construction of the large diameter force main will disturb over two acres of ground spread along a nearly a one mile route, plus extensive relocation of utilities that may lie in conflicting locations. The

regional basin will disturb an unspecified but larger area. The 3100-plus kilowatt pumps will require major incoming high voltage electric transmission lines. Alternate power will require either an equal set of transmission lines, or the installation of diesel generating capacity with attendant fuel storage and handling facilities.

- B: Gravity discharge through former BP Amoco site: The construction of the large open channel will displace up to 18 homes, disturb utilities and require traffic relocation to construct at least six road crossings. Replacement of open channel with large diameter gravity sewer will reduce home displacement but disrupt an equal number of utilities.
- C: Local Detention system: The local system will require the least disruptive construction since only the detention basin, requiring 2 to 4 house lots will receive major construction. The pumps, if required, will be small, and the discharge line will be a sewer of approximately 18-inch diameter.
- 2. The necessity to deal with the fact that flooding allows surface water to be contaminated by the spread of raw sewage:

Neither alternative A nor B reduce the spread of sewage-contaminated floodwater. Alternative C collects the potential floodwater and immediately places it in a covered facility which protects citizens from coming into contact with it, and releases it back to sewers for eventual treatment.

CONCLUSIONS AND RECOMMENDATIONS

Benefit/Cost Ratio For Recommended Improvement

As described in the section "Estimated Value of Benefits From Improvement", the calculated annual benefit was calculated as the reduction in damages resulting from the construction of the project. The present value of the benefits were calculated using a the annual benefit less operating cost over an assumed 40-year design life and a 6% rate of return (interest cost). The present value of the benefits was then divided by the estimated project costs to provide a benefit/cost (B/C) ratio. The B/C ratios for the various alternatives is provided in the following table.

Table 10 - Benefit/Cost Ratios

Detention Basin Alternative (ac-ft)	Estimated Construction and Operating Costs	Calculated Annual Benefit	Present Value of Benefits (40 yrs.@6%)	Benefit/Cost Ratio
6.4	\$1,539,412	\$338,522	\$5,093,503	3.31
12.8	\$2,568,995	\$382,337	\$5,752,748	2.24
19.3	\$3,588,752	\$540,184	\$8,127,774	2.26
32.1	\$5,627,920	\$598,838	\$9,010,294	1.60

Improvement Implementation Considerations

This section lists some of the financial, operational, and social constraints in constructing the recommended alternative.

Financial

Overall improvement in property values, potentially reduced value immediately adjacent to basin.

Operational

The physical location of the site may require a basin of a size or slope that could constrain or limit a specific alternative at that site. For example, to achieve the necessary volume the basin may need to constructed with vertical side walls making access for maintenance more difficult. Also, the need to pump to the sewer system will require a small pump station with its associated operating and maintenance costs.

Social

Drainage systems serve people, not just property. This fact gives rise to subjective constraints requiring solutions that may not be warranted strictly on the basis of their cost-effectiveness. For example, the required cover could be perceived as an eyesore and negatively impact the aesthetic values of the neighborhood. Conversely, the need to address such questions may require more than minimum construction costs to allow for enhanced aesthetics. Also, property buy-outs are often politically troublesome. Without proper citizen consideration, it may be difficult to secure public support for a solution even among the potential beneficiaries.

In addition, the government permitting process requires mitigation strategies acceptable to the proper regulatory agencies. These include the Illinois Environmental Protection Agency and the Illinois Department of Natural Resources.

Proposed Action Plan and Schedule

- Hold public meetings to gauge neighborhood acceptance of proposed alternative
- Apply to IDNR for grant money
- Begin project design
- Complete project design
- Begin project construction
- Complete project construction

APPENDIX

(Assumptions and Calculations for Alternatives A, B, and C)

ALTERNATIVE A - PUMP TO REGIONAL DETENTION BASIN Calculations and Assumptions

DESIGN FLOW:

Assume 5 year storm

643 CFS

288578.4 GPM

STATIC HEAD:

Assume detention basin top water surface at 440.00 Assume 20 ft. drop to wet well bottom water surface from top of ground. Assume ground at wet well at 435.00

Static Head =

440-435+20=

25 V.L.F.

FORCEMAIN:

4000 Ft.

Under Central Ave./Rt. 111

	300000 CFS	10.5 Ft/S	108 Inch Pipe	0.183 Ft Loss/100Ft
I	250000 CFS	8.76 Ft/S	108 Inch Pipe	0.129 Ft Loss/100Ft

Assume fittings equivalent to extra 40 ft of pipe per 1000 ft line length

HEAD LOSSES:

Assume losses are 0.171 Ft/ 100 Ft. (Interpolated from forcemain data)

Friction Loss =

4000*(.171/100) =

6.84 Ft.

Minor Loss =

(4000/1000)*40*(.171/100) =

0.27 Ft.

Total Losses =

Friction + Minor Losses =

7.11 Ft.

TOTAL DYNAMIC HEAD:

Total dynamic head = static head + head losses=

32.11 Ft.

PUMP DESIGN:

Flow

288578.4 GPM

TDH

32.11 Ft.

Brake Hp

3120 Hp

(Assuming 75% hydraulic efficiency)

kW-hour

3102 kWh

(Assuming 75% motor efficiency)

ALTERNATIVE B - GRAVITY DISCHARGE THROUGH BP AMOCO PROPERTY **Calculations and Assumptions**

DESIGN FLOW:

Assume 5 year storm

643 CFS

288578.4 GPM

ALIGNMENT:

2100 Ft.

West under Hawthorne

5400 Ft.

Southwest through BP Amoco to open water

Ground Slope =

10 Ft. over upstream 7000 Ft.

(0.14%)

10 Ft. over downstream 500 Ft.

(2.00%)

20 Ft / 7500 Ft =

0.003 Ft/Ft Overall Slope

Per USGS Normal Pool Elev. At Mississippi River = 398.0 Per COE Normal Pool Elev. At Mississippi River = 394.0 Assume higher elevation. Assume ground elevation at Flooding Site = 395.0 Assume 9' depth of channel or pipe Maintain top of pipe/channel at or below grade.

Max Available Slope= (435-(398+9))/7500 =

0.0037 Ft/Ft Overall Slope

PIPE:

Per RCP Manning's Equation nomograph:

Require 102" pipe to carry 643 cfs at 0.37% (ave.) Require 120" pipe to carry 643 cfs at 0.14% (min.)

OPEN CHANNEL:

Assume trapezoidal channel with 3:1 side slopes.

Assume grass and brush ground covering.

Results of Manning's Equation Attached.

This option requires buying property adjacent to Hawthorne and constructing numerous culverts or bridges for side streets.

STORM SEWER:

Assume 700 ft.of 24" storm sewer (2 blocks in two directions each) to collect runoff. Assume 4 new storm sewer inlets per intersection covered by new storm sewer.

COST ESTIMATE:

A preliminary cost estimate for the pipe option is attached.

Pipe Flow through Amoco Property Engineer's Estimate of Probable Costs

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CONCE	コルカル	Costs
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Item	Quantity	Units	Unit Cost	Cost
Excavation	237800	CYd	\$6	\$1,426,800
Remove Concrete Road	4667	SYd	\$12	\$56,000
Repave Street	4667	SYd	\$25	\$114,333
Granular Backfill	271671	CYd	\$35	\$9,508,472
9' RCP	7500	LFt	\$500	\$3,750,000
24" RCP StormSewer	2200	LFt	\$41	\$89,100
Sewer Inlets	78	Each	\$1,177	\$91,806
				\$15,036,511
Contingency (20%)		Karana Kara		\$3,007,302
Contingency (2076)				ψυ,υυτ,υυΖ
Total Estimated Constructi	on Cost			\$18.043.813

ALTERNATIVE C - CREATE LOCAL DETENTION SYSTEM Calculations and Assumptions

DESIGN FLOW:

Assume storm distribution per Bulletin 71, Illinois Region 8 (attached)

Assume Type B soil.

Single Family Residential

CN= 85

Undeveloped/Park Lands

CN= 69

Northwest Tributary Area:

Area =

0.16 square miles

All Single Family Residential

Southeast Tributary Area:

Area =

0.67 square miles

Assume 60% undeveloped land, 40% single family residential

Composite CN= 75.4

Interior Drainage Area:

Consider contour 440.0 as interior drainage area.

Area =

0.24 square miles

All Single Family Residential

EXISTING STREET INLETS

Use orifice equation with top water elevation at curb height. Q=3*A*D^.5)

Assume inlet height = 5" Assume curb height = 10" Assume sag in road.

Q per inlet =

1.7116 cfs

Southeast Trib. Area:

No. Inlets =

3 Total Q = 5.13

Northwest Trib. Area:

No. Inlets =

42 Total Q = 71.89

Interior Drainage Area:

No. Inlets =

39 Total Q = 66.75

EXISTING STORM SEWER:

Assume storm sewers slope parallel to ground slope.

Ground slope = 0.25%

30" RCP at 0.25% can convey Q = 21.0 cfs per nomograph (attached).

NEW STORM SEWER:

Assume 700 ft.of 24" storm sewer (2 blocks in two directions each) to collect runoff. Assume 4 new storm sewer inlets per intersection covered by new storm sewer.

COST ESTIMATE:

A preliminary cost estimate for the local detention basin is attached.

Additional assumptions used for the cost estimate are as follows:

Excavated soil will be hauled a 10 mile round trip.

Detention basin top water level is even with ground (435.0).

Detention basin is 10 feet deep.

Detention Basin has 3:1 side slopes.

Entire disturbed site is to be reseeded.

Pump station is relatively small and prefabricated.

Each pump is 3 Hp.

19.3 Ac-Ft Detention Basin

Engineer's Estimate of Probable Costs

Construction C	Costs
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Item	Quantity	Units	Unit Cost	Total Cost
Excavation	37556	CYd	\$8	\$300,444
Seeding	10889	SYd	\$2	\$21,778
Haul	37556	CYd	\$12	\$450,667
Demolish Homes	14	Each	\$4,800	\$67,200
Cover	84000	SFt	\$9	\$756,000
Pump Station	1	LS	\$20,000	\$20,000
24" RCP StormSewer	2200	LFt	\$41	\$89,100
Sewer Inlets	24	Each	\$1,177	\$28,248
~7C03107L0C08020850116180464089210471144114C2844	\$633.60-\$566.60.60.60.80\$		ena filo de comunicación de desta de la comunicación de comunicación de la comunicación de la comunicación de c	\$1,733,437
Contingency (20%)				\$346,687
Property Acquisition	14	Homes	erre.vm;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	\$1,400,000
Total Estimated Constr	uction Cost		an i Amerika Tibelian kanasa kerajagai iya keripasa (il)	\$3,480,124

·	Annual	Year 2002
Item	Cost	Cost
Electricity	\$15	\$223
Maintenance	\$5,240	\$78,840
Mowing	\$1,965	\$29,565
Total Operations and Maintenance Costs		\$108,628

Total Cost	\$3,588,752

12.8 Ac-Ft Detention Basin

Engineer's Estimate of Probable Costs

	Cor	ารtrเ	uction	Costs
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Item	Quantity	Units	Unit Cost	Total Cost
Excavation	26074	CYd	\$8	\$208,593
Seeding	7778	SYd	\$2	\$15,556
Haul	26074	CYd	\$12	\$312,889
Demolish Homes	10	Each	\$4,800	\$48,000
Cover	56000	SFt	\$9	\$504,000
Pump Station	1	LS	\$20,000	\$20,000
24" RCP StormSewer	2200	LFt	\$41	\$89,100
Sewer Inlets	24	Each	\$1,177	\$28,248
		e booker on general page 1		\$1,226,385
Contingency (20%)		\$245,277		
Property Acquisition	10	Homes		\$1,000,000
Total Estimated Constr	Total Estimated Construction Cost			

	Annual	Year 2002
Item	Cost	Cost
Electricity	\$13	\$200
Maintenance	\$4,695	\$70,642
Mowing	\$1,761	\$26,491
Total Operations and Maintenance Costs		\$97,333

Total Cost	\$2,568,995

6.4 Ac-Ft Detention Basin

Engineer's Estimate of Probable Costs

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Item	Quantity	Units	Unit Cost	Total Cost
Excavation	14593	CYd	\$8	\$116,741
Seeding	4667	SYd	\$2	\$9,333
Haul	14593	CYd	\$12	\$175,111
Demolish Homes	6	Each	\$4,800	\$28,800
Cover	28000	SFt	\$9	\$252,000
Pump Station	1	LS	\$20,000	\$20,000
24" RCP StormSewer	2200	LFt	\$41	\$89,100
Sewer Inlets	24	Each	\$1,177	\$28,248
				\$719,333
Contingency (20%)				\$143,867
Property Acquisition	6 1	Homes	NAME OF THE PERSON NAME OF THE P	\$600,000
Total Estimated Constr	uction Cost			\$1,463,200

Item	Annual Cost	Year 2002 Cost
Electricity	\$12	\$177
Maintenance	\$4,159	\$62,570
Mowing	\$1,559	\$23,464
Total Operations and Maintenance Costs		\$86,212

Total Cost	\$1,549,412

2.6 Ac-Ft Detention Basin

Engineer's Estimate of Probable Costs

_	4	4.4	~ .
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Item	Quantity	Units	Unit Cost	Total Cost
Excavation	7704	CYd	\$8	\$61,630
Seeding	1618	SYd	\$2	\$3,236
Haul	7704	CYd	\$12	\$92,444
Demolish Homes	2	Each	\$4,800	\$9,600
Cover	11200	SFt	\$9	\$100,800
Pump Station	1	LS	\$20,000	\$20,000
24" RCP StormSewer	2200	LFt	\$41	\$89,100
Sewer Inlets	24	Each	\$1,177	\$28,248
	mmese meem enn eren Oferskraad illiakonsiilija systemi			\$405,058
Contingency (20%)				\$81,012
Property Acquisition	2	Homes		\$200,000
Total Estimated Constr	uction Cost			\$686,069

	Annual	Year 2002
Item	Cost	Cost
Electricity	\$11	\$164
Maintenance	\$3,840	\$57,778
Mowing	\$1,440	\$21,667
Total Operations and Maintenance Costs		\$79.608

Total Cost	\$765 677
Total Cost	\$100,011

2.6 Ac-Ft Detention Basin

Engineer's Estimate of Probable Costs

Construction Costs				
Item	Quantity	Units	Unit Cost	Total Cost
Excavation	192563	CYd	\$8	\$1,540,500
Seeding	137778	SYd	\$2	\$275,556
Haul	192563	CYd	\$12	\$2,310,750
Demolish Homes	1	Each	\$4,800	\$4,800
Cover	0	SFt	\$9	\$0
Pump Station (CIP Concr	148	Cyd	\$550	\$81,400
24" RCP StormSewer	2200	LFt	\$41	\$89,100
Sewer Inlets	24	Each	\$1,177	\$28,248
		alviditation apromos is a supermosare messare		\$4,330,354
Contingency (20%)				\$866,071
Property Acquisition	2	Homes		\$200,000
Total Estimated Constru	iction Cost			\$5 396 424

	Annual	Year 2002
Item	Cost	Cost
Electricity	\$11	\$164
Maintenance	\$3,840	\$57,778
Mowing	\$1,440	\$21,667
	And the second s	
Total Operations and Maintenance Costs		\$79,608

Total Cost	\$5.476.032
. 0101 0001	40,110,002

APPENDIX S

Option I.B.: Central & Hawthorn Area Sewer Separation Analysis

Pipe Flow through Amoco Property Engineer's Estimate of Probable Costs

Construction Costs

Item	Quantity	Units	Unit Cost	Cost
Excavation	73886	CY	\$19	\$1,403,836
Remove & Replace Concrete Road	42000	SF	\$78	\$3,276,000
Granular Backfill	32796	CY	\$41	\$1,344,630
9' RCP	7500	L.F	\$625	\$4,687,500
24" RCP StormSewer	2200	LF	\$80	\$176,000
Sewer Inlets	78	EΑ	\$1,700	\$132,600
Manholes	19	EA	\$1,800	\$34,920
				\$11,055,487
Contingency (20%)				\$2,211,097
Total Estimated Construction Cost	System Condens States and States			\$13.266.584

Note 1: This estimate does not include costs associated with easments or leagal fees. Also, groundwater dewatering expense has not been included in this estimate, base on the assumption that the sewer intallation contractor would be allowed a long enough completion schedule that high-ground water conditions could be avoided.

Note 2: Shaded areas in the Construction Cost Estimate above indicate changes made to the origional 2002 estimate by H&S.

Rational Method -- Stormwater Runoff Entering Combined Sewers

Q=API

where

Q = runoff (cu.ft./s)

A = Area (Acres)

I = Avg. Intensity of rainfall (in/hour)*

*Note: used one-hour three-month rainfall intensity= 0.81 in/hr.

P = runoff factor based on degree of perviousness

Type	Area	P Value	Q
Single Family R1	257	0.32	67
Conservation/Recreation	428	0.44	153

Total runoff removed from system :

5.90 MG

APPENDIX T

Public Meeting Minutes and Other Documentation



5200 Oakland Ave. • St. Louis, MO 63110 (314) 531-4321 • Fax: (314) 531-6966

www.hornershifrin.com

MEMORANDUM

TO:

Wood River CSO LTCP Project File

DATE:

April 20, 2007

FROM:

Rebecca Hoffmann / Leo Ebel

H&S JOB NO:

05,119

RE:

Public Meeting Record

On Monday evening at 5:30 p.m., a public meeting was conducted at the City Hall of the City of Wood River (111 No. Wood River Avenue) pertaining to the development of the CSO Long Term Control Plan (LTCP) for the City of Wood River.

The following persons were in attendance (refer to attached meeting sign-up sheet):

Rebecca Hoffmann, Horner & Shifrin Leo Ebel, Horner & Shifrin Steve Palen, City of Wood River Bruce Murphy, Veolia Environmental Harrison Paisley, Citizen Mark Sahiley, Citizen H. T. Arnold, Citizen

The meeting was conducted in general accordance with the attached agenda, with Rebecca Hoffmann of Horner & Shifrin presiding (as requested by Steve Palen).

Ms. Hoffmann began the meeting with introductions of the persons with the City of Wood River and their consultant for the preparation of this CSO LTCP (Horner & Shifrin) who were in attendance. She then proceeded with an initial, approximately 15-minute long presentation, following the agenda; and shown in more detail by the attached 15-page handout (a copy of which was given to each meeting attendee, at the conclusion of the meeting. During the presentation, the attached single-(double-side-printed) page, quarter-folded copy of USEPA's pamphlet entitled Controlling Combined Sewer Overflows was also distributed to the attendees; and then briefly discussed.

Following the conclusion of the initial presentation, Ms. Hoffmann opened the meeting to questions from the public; and the following (paraphrased) questions were asked and answered:

Question 1.: Why does the City of Wood River have only one combined sewer outfall (discharge point), and doesn't this fact make the City's combined sewer system more susceptible to sewer back-ups into resident's basements?

Answer 1.: Steve Palen responded that the fact that the City of Wood River has only one outfall is, in fact, a positive thing; in that it greatly simplifies the monitoring and control of the City's combined sewer overflow discharges. Mr. Palen then went on to explain that this single outfall is actually connected to an entire "network" of sewers (the collection system) that drains the sanitary wastewater and stormwater from the entire City down to the City's wastewater treatment plant. It is the collection system sewers, NOT the outfall sewer, which actually determines whether or not individual residents encounter problems with the "emptying" of their house lateral sewer at any given time.

- Answer 1.: (cont'd)
- Mr. Palen used the USEPA pamphlet handout to further explain the relationship of the collection system sewers to residential basement back-ups and to stormwater flooding in residential neighborhoods. Based on that explanation, the citizens in attendance then acknowledged that they understood that it was the collection system sewers (not the outfall sewer to the River) which really determined whether or not individual residents experienced residential flooding or basement back-ups.
- Question 2.: The stated average of 29 CSO events per year from the City of Wood River's outfall seems to be a pretty high number what are the negative effects of so many CSO's?
- Answer 2.: Steve Palen responded that the issue really isn't the number of CSO discharges, it is the total quantity of untreated wastewater that is released into the environment and the extent of adverse environmental impact that results from that wastewater which are the real issues.

One major purpose of this LTCP preparation effort is to more accurately determine the answers to these two questions; but the major environmental concerns are the potential adverse impacts of Wood River's CSO discharges on human whole-body-contact activities in the Mississippi River in the vicinity of Wood River's outfall, and/or on the drinking water production river water intakes downstream of Wood River's outfall (for Granite City at Chouteau Island and for the City of St. Louis at Chain of Rocks).

However, compared to many other communities in the Greater St. Louis area and around the U.S., the potential adverse environmental impacts from Wood River's CSO discharges are not as serious.

- Question 3.: There are problems with too much stormwater entering the combined sewer system during rainstorms in a lot more than two locations around the City so why is the City considering doing only two sewer separation project?
- Answer 3.: Steve Palen responded that, theoretically, the simplest solution to the City's CSO issues would be to replace the City's entire combined sewer system with a new system comprised of totally separate sanitary wastewater and stormwater sewers; but the cost of that solution and the time required to fully implement it are prohibitively high.

So, instead the City and their engineers are evaluating which parts of the City's combined sewer system could be separated that would produce the most "bang for the City's buck", meaning which projects would separate out the most stormwater (benefit) at the least capital expense to the City. The Madison Avenue and Central & Hawthorne projects have been determined to be the only two projects which, at this time, have a sufficiently high benefit:cost ratio to justify implementation.

As a follow-up, the citizen who asked Question 3. then stated that he was glad to learn that the City was seriously considering this BP Amoco storage pond option; because he believed that this option represented the most cost-effective solution to CSO problems in Wood River. So, its implementation would significantly aid the City in keeping the costs of CSO regulation compliance low, which would keep potential increases to Wood River residents' sewer bills low – which was VERY important.

- Question 4.: The City of Wood River previously had a plan to use the Amoco storage ponds back in the mid-'80's why wasn't that plan implemented then, and does the City think that a similar plan will work now?
- Answer 4.: Steve Palen responded that he had been told by other City staff that the Amoco "plan" had not been implemented some 20 years ago primarily because the cost was too high. However, it is also believed that (at that time) Amoco had serious reservation about "mixing" the City's wastewater with Amoco's wastewater in Amoco's storage ponds. For these reasons, the Illinois Pollution Control Board ultimately ruled that, at that time, the City was not required to complete such an extensive, complicated, and costly project.

Now, the use of BP Amoco's existing storage ponds to temporarily store the City's "excess" combined wastewater during wet weather events is definitely one of several options for reducing the number and extent of CSO discharges by Wood River that is being seriously considered. Early discussions with BP Amoco about this Option have been encouraging (mainly because, at this time, BP Amoco no longer has any active operations at their Wood River facilities; except for environmental contamination clean-up); but much of the detail concerning how such an Option would actually be implemented still needs to be developed before the current feasibility of implementing this Option can be accurately determined.

The meeting closed with Ms. Hoffmann reminding the citizens present that, if they had any questions and/or suggestions about the CSO LTCP preparation process, they should not hesitate to call either her or Steve Palen; and thanked the residents for their attendance at this public meeting.

END OF PUBLIC MEETING RECORD

CITY OF WOOD RIVER, ILLINOIS

Combined Sewer Overflow Long Term Control Plan (CSO LTCP) Public Participation Meeting – April 16, 2007 Proposed Meeting Agenda

<u>Part</u>	<u>Description</u>
1	Introductions
2	Purpose(s) of This Meeting
3	"Combined" vs. "Separate" Sewers
4	CSOs and Residential Flooding
5	Brief Description of Major Elements of Draft LTCP
6	How Can Wood River's Citizens Participate
7	Questions / Comments

Prepared By: **Horner & Shifrin, Inc.** April 16, 2007

CITY OF WOOD RIVER, ILLINOIS

Combined Sewer Overflow Long Term Control Plan (CSO LTCP) Public Meeting Initial Presentation

April 16, 2007

1. Introductions

Rebecca Hoffmann
Horner & Shifrin
rhoffmann@hornershifrin.com
314-531-4321

Leo Ebel Horner & Shifrin

Steve Palen
Director of Public Services
City of Wood River
spalen@cityofwoodriver.com
618-251-3122

2. Purposes of Meeting

- To encourage public involvement
- Educate public on Combined Sewer Overflows (CSO) and the Long Term Control Plan (LTCP)
- Obtain public comments on draft LTCP for consideration and possible incorporation into LTCP

3. "Combined" vs. "Separate" Sewers

- Combined Sewers
 – collect sanitary sewage from residential, industrial, and commercial sources, along with stormwater runoff from streets
- Separate Sewers
 – sanitary sewers
 collect all "domestic" wastewater
 for treatment, while storm sewers
 collect storm water for discharge to
 the River

4. CSOs and Residential Flooding

- When heavy rains occur, the capacity of the wastewater treatment plant and/or the combined sewers may be exceeded:
 - When the WWTP is exceeded =Combined Sewer Overflow (CSO)
 - When the combined sewer system is exceeded = Residential flooding

5. Brief Description of Major Elements of Draft LTCP

- Purpose of the LTCP
 - Required by an Administrative Order issued by USEPA in 2005
 - Comprehensive, written plan to significantly reduce number of CSO discharge events <u>and</u> to substantially minimize adverse environmental impacts

Brief Description of Major Elements of Draft LTCP

(continued)

- Nature/Extent of CSO Discharges by Wood River
 - Average of 29 CSO events per year
 - Approx. 252 million gallons of CSO flow per year
 - Main concern is discharge of material carrying pathogenic (diseaseproducing) bacteria or viruses, into the River

- Potential Impacts of Wood River's CSOs on the Environment
 - Possible spread of disease through aquatic environment
 - Increases the amount of sand/grit, trash, and other foreign objects discharged into waterways
 - Decreases the levels of dissolved oxygen available to fish and other aquatic life
 - "Sensitive" area issues (proximity of downstream drinking water intake at Choteau Island)

- CSO Controls Already Utilized by Wood River
 - WWTP was designed to treat, a volume of 4.8 mgd (2.5 times the average daily flow of sanitary waste)
 - Screening of all CSO flows to control the discharge of large solids
 - Pollution Prevention Plan
 - Public Notification Plan
 - Sewer System Optimization Plan
 - Sewer Use Ordinance

- Additional CSO Control Alternatives Being Considered for LTCP
 - Sanitary/Storm sewer separations
 - Use of BP Amoco's riverfront storage ponds
 - "End-of-pipe" treatment (solids removal and disinfection)
 - Modify existing WWTP to increase hydraulic capacity

- Wood River's Financial Capability to Implement Additional CSO Controls
 - Cost of additional CSO controls
 - Median household income
 - Bond rating
 - Overall net debt
 - Property tax revenues
 - Property tax revenue collection rate
 - Cost per household
 - Other factors

- Very Preliminary Potential Cost of LTCP Improvements:
 - Storm Sewer Separations\$ 10 million +
 - Use of BP Amoco Lagoons\$ 3 to 4 million
 - "End of Pipe" Treatment\$ 3.5 to 4 million
 - Increase WWTP Capacity\$ 0.5 to 0.75 million
- Possible Schedule for Implementing LTCP
 - Improvements must be completed within 5 years of EPA approval of LTCP

How Can Wood River's Citizens Participate

- Attend / Ask Questions / Make Comments at This Meeting
- Monitor the Public Works Dept.'s
 Website for Future Actions on This
 LTCP, then e-mail or Call With
 Questions / Comments
- Take direct action

How Can Wood River's Citizens Participate

- Get Pro-actively Involved in Minimizing CSO's
 - Using <u>only</u> non-toxic, environmentsafe household chemicals
 - Never using drains, toilets, or storm inlets for chemical disposal
 - Recycling papers, bottles, plastic items
 - Using <u>only</u> non-toxic, environmentsafe fertilizers & pesticides
 - Never using drains, toilets, or storm inlets for yard-waste disposal
 - Choosing native landscape plants that use less fertilizer/pesticides
 - Never littering

6. How Can Wood River's Citizens Participate

- Volunteer to Help City Staff Comply with CSO Control Regulations
 - Paint informational stencils on storm drain inlets
 - Report locations of surface flooding during wet weather events
 - Report basement back-ups occurring during wet weather events
 - Talk to ("educate") your neighbors about the information covered in this meeting



Environmental Protection Agency

EPA-833-F-05-001

Additional copies of this document can be obtained from:

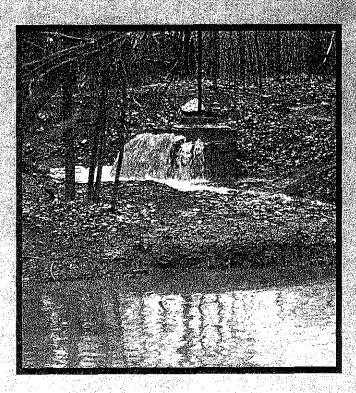
U.S. EPA Publications Clearinghouse

P.O. Box 42419 Cincinnati, OH 45241

Telephone: 800-490-9198

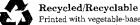
Fax: 513-489-8695

Office of Water
U.S. Environmental Protection Agency
www.epa.gov/npdes/cso



Controlling Combined Sewer Overflows





Printed with vegetable-based ink on paper that contains a minimum of 50% post-consumer fiber content processed chlorine-free.

1040 does my community use its LTCP to protect public health and water quality?

In most cases, implementing the nine minimum controls and properly developing and implementing a Long Term Control Plan (LTCP) should be sufficient to protect public health and water quality from CSO discharges. Each community's plan to control pollution from CSOs will be different; depending on the severity of the CSO problem rand the community situancial capabilities.

In general CSC communities can use some or all of the following solutions:

- 1) Establish programs to eliminate or minimize the potential for wastes and pollutants to enter the combined sever system
- I Institute collection system controls to remove an divert excess flow from the sevensystem
- (3) Temporarily store excess flows for treatment after the rain storm
- (4) Install additional treatment systems to handle the excess flows

LTCPs can include a wide variety of solutions, from simple controls such as screens at the CSO to collect trash, to more advanced controls, such as reducing the flow of water into the system by redirecting roof drains and sump pumps. LTCPs can also include more advanced land costly activities, such as constructing retention basins to hold the wastewater and stormwater until the treatment plant has the capacity to treat it, or separating the combined wastewater and stormwater collection systems.

Using the watershed approach to control pollution from CSOs

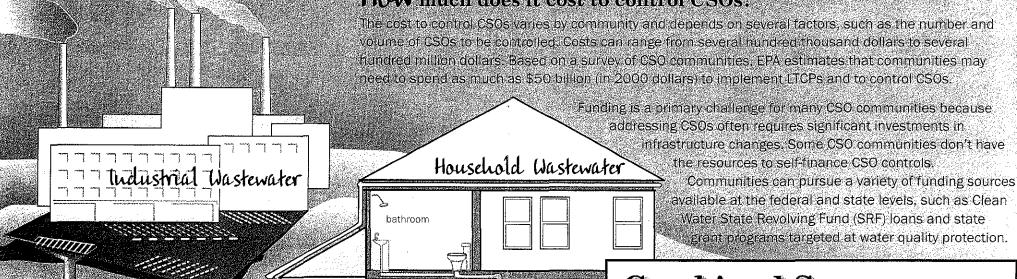
A watershed is an area of land that drains into one stream, river, lake, or bay. Watersheds come in all shapes and sizes. They cross county, state, and national boundaries. No matter where you are, you're in a watershed!

The watershed approach is a strategy for effectively protecting and restoring aquatic ecosystems and protecting human health. Communities that use the watershed approach understand that many water quality and ecosystem problems are best solved at the watershed level rather than at the individual community or discharger level.

The major features of a watershed approach are targeting priority problems, promoting a high level of stakeholder involvement, seeking integrated solutions that make use of the expertise and authority of multiple agencies, and measuring success through monitoring and other data-gathering efforts. CSO communities might find that addressing CSOs on a watershed basis can result in more public support and lead to strong partnerships with other communities for LTCP development and implementation.

HOW much does it cost to control CSOs?

available at the federal and state levels, such as Clean Water State Revolving Fund (SRF) loans and state grant programs targeted at water quality protection.



	HORNER&SHIFRIN,INC.
100	HORNER&SHIFRIN, INC. 5200 Oakland Ave., St. Louis MO 63110 640 Pierce Boulevard, Suite 200, O'Fallon IL 62269

SHEET NO	!	OF	JOB NO.	05.	11	9	
A			 _				

TITLE:

SUBJECT FILE

BY LAE DATE 4-16-07

CHECKED

Rebecca Hoffmann, Horner & Shifrin

Leo Ebel, Horner & Shifrin

Steve Polen, City of Wood River

Bruce Murphy, Veolia Environmental

Citizens:

- 1) HARRISON PAISLEY 350 COLLINE DR. W.R.
- 3 MARK SEATURY
 - 3 H. T. Arnold 502 George

<u>APPENDIX U</u>

Illinois Dept. of Natural Resources
Threatened and Endangered Species Statement





EcoCAT Results Report

IDNR Project Number: 0605409

Date: 6/19/2006

Applicant Name: Horner & Shifrin Contact Name: Christina Warmann

Applicant Address: 5200 Oakland Avenue St. Louis, MO 63110

Project Information

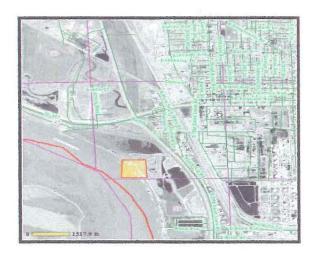
Project Name: Wood River CSO

Jurisdiction: Illinois Environmental Protection Agency

IDNR Project Number: 0605409

County: Madison

Township, Range, Section: 5N, 9W, 28



Location Accuracy

The project location is assumed to be accurate for the purpose of this environmental review based on what is submitted by the applicant. The applicant who submits the information is solely responsible for the location submitted and thus the accuracy of this report content.

Review Results

Consultation Review Process (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory (INAI) sites, dedicated Illinois Nature Preserves, or registered Land & Water Reserves in the vicinity of the project location submitted.

Consultation under Part 1075 is terminated. Termination does not imply IDNR's authorization or endorsement. Consultation may be re-opened if information not previously considered is brought to our attention. Consultation is valid for no more than two years. If the project has not been implemented by then, a new consultation will be necessary.

rf at a later date it is determined that state funds will be used, please resubmit the project for a wetlands view or contact the staff member identified below.

EcoCAT Results Report

IDNR Project Number: 0605409 Date Submitted: 6/19/2006

Disclaimer

The Illinois Natural Heritage Database at the Illinois Department of Natural Resources (IDNR) cannot provide a conclusive statement on the presence, absence, or condition of significant natural features in any part of Illinois. This report summarizes only the information existing in the Illinois Natural Heritage Database regarding natural features or locations in question known to IDNR at the time of this inquiry. This report should not be regarded as a final statement on the site being considered, nor should it be a substitute for field surveys required for environmental assessments. This response cannot replace detailed site surveys. Furthermore, should a protected resource be encountered during the project's implementation, compliance with applicable statutes and regulation is required regardless of the results of this review.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

- The IDNR EcoCAT website was developed and intended for the purpose of screening projects for potential adverse impacts to
 protected resources under the Endangered Species Consultation Process (Illinois Administrative Code Title 17 Part 1075) and
 for responding to general requests for information. By indicating your agreement to the Terms of Use for this application, you
 warrant that you will not use this web site for any other purpose.
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- IDNR reserves the right at any time without notice to enhance, modify, alter, or suspend the website and to terminate or restrict your access to the website.
- 4. This review is based only on the project polygon that was submitted. The review must be repeated if the project boundary changes. If additional information on protected resources becomes available, this review may be reconsidered by IDNR.

Security

The IDNR EcoCAT application operates on a state of Illinois computer system. We may use software to monitor traffic and to 'entify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site.

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Privacy

The EcoCAT website maintains a record of each search result and all information submitted for each search. This information is recorded for internal tracking purposes. The information collected in this application will not be shared outside of the EcoCAT system and the Illinois Department of Natural Resources; however, this information does become public record and is therefore subject to the Freedom of Information Act (FOIA).

Contact Information

If you have questions regarding this project review, please contact:

Michael Branham 217-785-5500 Illinois Department of Natural Resources Division of Ecosystems and Environment

cc: Illinois Environmental Protection Agency

APPENDIX V

Illinois Pollution Control Board WQS For Public Water Supply Use: <u>Subpart C</u>

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY WATER QUALITY STANDARDS FOR PULBIC WATER SUPPLY SOURCES

SUBPART C: PUBLIC AND FOOD PROCESSING WATER SUPPLY STANDARDS

Section 302.301 Scope and Applicability

Subpart C contains the public and food processing water supply standards. These are cumulative with the general use standards of Subpart B and must be met in all waters designated in Part 303 at any point at which water is withdrawn for treatment and distribution as a potable supply or for food processing. Waters of the State are generally designated for public and food processing use (Section 303.202).

Section 302.302 Algicide Permits

The water quality standards of Subparts B and C may be exceeded if such occurrence results from the application of an algicide in accordance with the terms of an algicide permit issued by the Agency pursuant to Part 602.

(Note: Prior to codification, Rules 203 and 204(d) of Ch 6: Public Water Supplies.)

Section 302.303 Finished Water Standards

Water shall be of such quality that with treatment consisting of coagulation, sedimentation, filtration, storage and chlorination, or other equivalent treatment processes, the treated water shall meet in all respects the requirements of Part 604.

(Note: Prior to codification, Table I, Rule 304 of Ch 6: Public Water Supplies.)

Section 302.304 Chemical Constituents

The following levels of chemical constituents shall not be exceeded:

CONSTITUENT	STORET NUMBER	CONCENTRATION (mg/l)
Arsenic (total)	01002	0.05
Barium (total)	01007	1.0
Cadmium (total)	01027	0.010
Chloride	00940	250.
Chromium	01034	0.05
Iron (dissolved)	01046	0.3
Lead (total)	01051	0.05
Manganese (total)	01055	0.15
Nitrate-Nitrogen	00620	10.
Oil (hexane-solubles or equivalent)	00550, 00556 or 00560	0.1
Organics		
Pesticides		
Chlorinated Hydrocarbon		
Insecticides		
Aldrin	39330	0.001
Chlordane	39350	0.003
DDT	39370	0.05
Dieldrin	39380	0.001
Endrin	39390	0.0002
Heptachlor	39410	0.0001
Heptachlor Epoxide	39420	0.0001
Lindane	39782	0.004
Methoxychlor	39480	0.1
Toxaphene	39400	0.005
Organophosphate Insecticides Parathion	39540	0.1
Chlorophenoxy Herbicides		
2,4-Dichlorophenoxyacetic acid (2,4-D)	39730	0.1
2-(2,4,5-Trichlorophenoxy)- propionic	39760	0.01
acid (2,4,5- TP or Silvex)		
Phenois	32730	0.001
Selenium (total)	01147	0.01
Sulfates	00945	250.
Total Dissolved Solids	70300	500.

(Source: Amended at 14 Ill. Reg. 11974, effective July 9, 1990)

Section 302.305 Other Contaminants

Other contaminants which will not be adequately reduced by the treatment processes noted in Section 302.303 shall not be present in concentrations hazardous to human health.

Section 302.306 Fecal Coliform

Notwithstanding the provisions of Section 302.209, at no time shall the geometric mean, based on a minimum of five samples taken over not more than a 30 day period, of fecal coliform (STORET number 31616) exceed 2000 per 100 ml.

(Source: Added at 12 Ill. Reg. 12082, effective July 11, 1988)

Section 302.307 Radium 226 and 228

Radium 226 and 228 (STORET number 11503) combined concentration must not exceed 5 picocuries per liter (pCi/L) at any time.

(Source: Added at 30 Ill. Reg. 4919, effective March 1, 2006)

WOOD RIVER, ILLINIOS CSO LONG TERM CONTROL PLAN

Appendix W Choteau Island Intake Annual Fecal Coliform Data

Annual Fecal Coliform Data 2002 thru 2005

							200	12				
	January	February	March	April	May	June	July	August	September	October	November	December
	1400	5800	2200	2900	500	200		100	200	400	700	2700
	1200 1000	5300 3000	2000 2500	2700 1400	1400 1500	500 600		200 200	200 200	400 500	1200 1300	1500 1100
	1000	2500	1300	900	1600	800		300	300	600	100	600
	1100	1800	1100	1900	2000	800		300	300	600	400	1100
	800	2900	4900	1000	2000	900		300	300	700	900	700
	1000	2900	3000	3600	2100	1300		400	400 400	700 900	1200	600 300
	500 1000	1200 2100	2200 2600	1300 1400	2300 2600	1500 1500		400 400	500	900	1100 1900	1000
	1300	1300	2300	400	2800	1600		600	500	1000	600	400
	1000	1100	3000	700	2800	1700		600	900	1200	700	2400
	1000	1700	1500	900	3000	1700		600	900	1200	1200	2200
	1900	700	1700	400	3100	1800 2000		700	1100 1300	1300	1300	1200 2100
	1600 1500	2800 1800	2500 2100	400 3100	3400 5500	2200		1000 1100	1400	1300 1300	1200	1700
	800	1500	6000	5100	5600	2600		1400	1700	1500		1100
	1500	2200	6700	2800	5600	3700		1700	1700	1600		
	1500	1900	3300	4300	5900	4500		1800	4100	1700		
	1400	2100		5600	6300	4700		1900		1800		
	2400 10100	1100		2200 6200	6500	11100		2400 2500		1900 1900		
	6700			4400				3100		2400		
	0,00			4400				0.00		2500		
Geometric Mean	1406	2004	2515	1778	2799	1571		675	617	1079	833	1084
							200					
	January 500	February	March	April 1900	May	June 400	July	August	September 100	October	November	December
	500 1000	2800 2300	2500 1200	1900 600	400 400	400 600	200 200	100 100	100 100	100 100	900 600	800 600
	1600	700	1000	4700	900	600	300	100	400	100	600	1200
	400	300	500	1200	900	600	300	100	400	200	500	300
	700	700	600	10800	1000	600	400	200	400	300	300	1600
	1000	400	1400	700	1000	800	400	300	400	300	1200	1400
	400		700	1100	1200	900	500	300	500	300	400 900	400 700
	300 300		600 3200	1200 700	1400 1400	900 900	500 700	400 400	500 7 00	300 400	2000	2800
	600		1200	400	1900	1100	700	400	800	400	3000	1100
	500		200	1000	2200	1100	700	500	1400	400	3100	2000
	700		100	2700	2200	1100	900	500	1600	400	12400	10400
	2900		2500	2600	2800	1400	1000	600	1700	500	10500	7900
	8100 2000	900 1900	600 1300	2900 1300	2900 3300	1400 2400	1100 1200	700 800	1800 2000	500 500	4800 10400	1500 1400
	100		1500	600	4100	3000	1500	900	2900	600	10400	1200
	2600	1000	1300	6100	7200	3100	2100	900	3400	800		1000
	1800	1200	1600	700	9400	3400	2200	900	4200	900		2300
	2700	1000	4100	2200		10200	4800	900	4700	1000		8800
	3100			800				1100	6200	1100		
	1700							1900		1600 2100		
Geometric Mean		·····								2400		
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Geometric mean	January 900 2500 5800 5100 2300	February 500 7100 2100 1000 4100	March 1300 700 1800 700 2900	April 1000 1000 700 500 4700	May 200 200 200 300 400	June 500 600 600 700 700	July 100 400 400 400 500	August 100 100 300 600 600	September 100 100 100 100 100	2400 463 October 100 100 100 200 300	November 6600 3200 3600 8400 5500	December 4700 3100 7900 7200 2600
Geometric mean	January 900 2500 5800 5100 2300 2700	500 7100 2100 1000 4100 700	March 1300 700 1800 700	April 1000 1000 700 500 4700 500	May 200 200 200 300 400 400	June 500 600 600 700	200 July 100 400 400 400	August 100 100 300 600 600 700	September 100 100 100 100	2400 463 October 100 100 200 300 300	November 6600 3200 3600 8400 5500 1800	December 4700 3100 7900 7200 2600 2900
Geometric mean	January 900 2500 5800 5100 2300 2700 1700	February 500 7100 2100 1000 4100 700 4300 1400	March 1300 700 1800 700 2900 1700	April 1000 1000 700 500 4700	May 200 200 200 300 400	June 500 600 600 700 700 900	200 July 100 400 400 400 500 500	August 100 100 300 600 600 700 800 800	September 100 100 100 100 100 100 300 300	2400 463 October 100 100 200 300 300 300 500	November 6600 3200 3600 8400 5500 1800 900 2400	December 4700 3100 7900 7200 2600 6800 4500
Geometric mean	January 900 2500 5800 5100 2300 2700 1700 1200	February 500 7100 2100 1000 4100 700 4300 1400 1800 1800	March 1300 700 1800 700 2900 1700 1800 2700 1100	April 1000 1000 700 500 4700 2000 700 500	May 200 200 200 300 400 400 900 1100 1200	June 500 600 700 700 900 900 900	200 July 100 400 400 500 500 500 600 600	August 100 100 300 600 600 700 800 800 900	\$eptember 100 100 100 100 100 100 300 300 300	2400 463 October 100 100 200 300 300 500 600	November 6600 3200 3600 8400 5500 1800 900 2400 1400	December 4700 3100 7900 2600 2900 6800 4500 2600
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	January 900 2500 5800 5100 2300 2700 1700 1200 2000 200 900	February 500 7100 2100 1000 4100 700 4300 1400 4400 900 2000 2600	March 1300 700 1800 700 2900 1700 1800 2700 1100 1400 500	April 1000 1000 500 4700 500 2000 700 500 1700 200	May 200 200 200 300 400 400 900 1100 1200 1300 1400	June 500 600 700 700 900 900 900 900 1000	July 100 400 400 500 500 600 600 700	August 100 100 300 600 600 700 800 800 900 1000	September 100 100 100 100 100 100 300 300 300 300	2400 463 October 100 100 200 300 300 500 600 700	November 6600 3200 3600 8400 5500 1800 900 2400 1400 1800 600	December 4700 3100 7900 7200 2600 2900 6800 4500 2600 3100 1900
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WOOD RIVER, ILLINIOS CSO LONG TERM CONTROL PLAN

Appendix W Choteau Island Intake Annual Fecal Coliform Data

Annual Fecal Coliform Data 2002 thru 2005

							20	05				
	January	February _	March	April	May	June	July	August	September	October	November	December
	13800	1700	600	500	99	99	99	99	99	99	1700	3100
	6600	2600	99	100	99	99	99	99	99	99	1200	1500
	5400	3200	200	200	99	99	99	99	99	100	500	1200
	6400	800	400	500	99	99	100	99	99	100	1100	1400
	1900	4400	500	300	100	100	100	99	99	100	1400	99
	3200	6400	400	600	100	200	100	99	100	100	700	300
	2600	9700	200	200	100	200	100	100	200	200	700	400
	1100	1800	400	500	100	300	200	100	300	200	200	1000
	7800	3100	700	300	200	400	200	200	300	200	3500	900
	1200	7800	300	600	200	400	200	200	300	200	3500	500
	3800	3200	100	500	200	400	300	200	300	300	99	2400
	3600	2400	700	500	300	400	300	200	400	400	500	400
	2300	1800	400	200	300	500	600	400	800	400	200	600
	1500	1100	99	100	300	500	800	400	900	400	200	700
	1700	1000	99	300	300	600	900	400	2100	500	2900	300
	600	500	5000	1100	300	700	900	500	2200	500	9100	500
	300	3800	2300	500	400	900	1200	800	2400	600	6000	600
	3000	1800	800	700	900	900	2000	900	2900	800		100
	900	1600	600	1100	900	1000	2500	900	3100	900		100
	1400	200	900	1100	2100	1000		1000	3800	900		400
						3700		2800		6500		
								3300				
Geometric Mean	2357	2077	414	401	227	371	305	299	458	309	970	548

	Geometric Mean								
_	2002	2003	2004	2005					
January	1406	970	1265	2357					
Febreuai	2004	791	2684	2077					
March	2515	1001	1246	414					
April	1778	1467	874	401					
May	2799	1738	1297	227					
June	1571	1242	1055	371					
July		720	837	305					
August	675	422	1282	299					
Sept.	617	974	366	458					
Oct	1079	463	766	309					
Novembe	833	1686	1923	970					
Decembe	1084	1518	2160	548					

APPENDIX X

Corrective Action Plan For Improving the City's Combined Sewer System Operations & Maintenance Record-Keeping (A.O. Response to Item No. 3.B.)

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

ITEM NO. 3.B)

Document(s) Submitted:

Corrective Action Plan For Improving Combined Sewer System

Operations and Maintenance Record-Keeping

Date Document Submitted:

January 3, 2008

Document Certification:

On behalf of the City of Wood River, Illinois, I hereby certify that all written statements contained in this document, which is submitted to USEPA pursuant to the above-referenced Administrative Order, are true and accurate to the best of my knowledge and belief. I also hereby stipulate that should I find, at any time subsequent to the submittal of this document to USEPA, that any of the written statements contained in this document are false or incorrect, I shall so notify USEPA – Region V.

Certification By: Stephen J. Palen, P.E.

Signature:

Title:

Director of Public Services

City of Wood River, Illinois

Date:

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CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

FOR
IMPROVING THE CITY'S
COMBINED SEWER SYSTEM
OPERATIONS & MAINTENANCE
RECORD-KEEPING

Prepared By
HORNER & SHIFRIN, INC.

December 2005

CORRECTIVE ACTION PLAN FOR IMPROVING THE CITY'S COMBINED SEWER SYSTEM OPERATIONS & MAINTENANCE RECORD-KEEPING

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CORRECTIVE ACTION PLAN FOR IMPROVING THE CITY'S COMBINED SEWER SYSTEM OPERATIONS & MAINTENANCE RECORD-KEEPING

I. PURPOSE AND SCOPE OF CORRECTIVE ACTION PLAN

A. Purpose

The primary purpose of this Corrective Action Plan for improving the combined sewer system operations and maintenance record-keeping practices of the City of Wood River, Illinois is to fulfill a requirement stated under Item 3.B) of an Administrative Order issued by USEPA Region V pursuant to Sections 308 and 309(a) of the Clean Water Act (Docket No. V-W-05-AO-16) and received by the City of Wood River on October 6, 2005.

Specifically, Item 3.B) of the above-referenced Administrative Order requires that the City shall submit to USEPA a Corrective Action Plan which addresses how the City will keep O & M records of combined sewer system operations and maintenance according to listed task, scope of task, and required frequency.

B. Scope

The above-described specific requirement essentially defines the scope of the necessary Corrective Action Plan, via references to both Special Condition 13, Paragraphs 6.a. and 8. of the City's modified NPDES Permit, and the City's State-approved revised Combined Sewer System Operational Plan.

Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002 contains two important elements of compliance for the City of Wood River's combined sewer system:

Paragraph 6.a.: requires compliance with one of the "Nine Minimum Controls" contained in the National CSO Control Policy published in the Federal Register on April 19, 1994; which is that proper operation and maintenance programs for sewer systems and CSO's must be established. Compliance with this Item shall be met through the requirements imposed by Paragraph 8 of Special Condition 13.

Paragraph 8.:

requires compliance with the objectives of the City's IEPA-approved Combined Sewer System Operations & Maintenance Plan dated December 18, 1997 and modified in March 2003; including mechanisms and specific procedures, where applicable, to ensure:

- collection system inspection a.
- b. sewer, catch basin, and regulator cleaning and maintenance
- collection system replacement, where necessary
- detection and elimination of illegal connections
- detection and elimination of dry weather overflows
- collection system operation to maximize storage capacity
- collection/treatment system operation to maximize treatment of flows

I. PURPOSE AND SCOPE OF CORRECTIVE ACTION PLAN (continued)

B. Scope (continued)

The requirement for compliance with Paragraph 8. of Special Condition 13 of the City's modified NPDES Permit closely parallels the requirement that this Corrective Action Plan address compliance with City's State-approved revised Combined Sewer System Operational Plan.

In addition, the past combined sewer system operations and maintenance record-keeping practices of the City of Wood River (which Administrative Order Item 3.A) required the City to also submit) serve to define the scope of this Corrective Action Plan, as well.

II. CURRENT RECORD-KEEPING PRACTICES

As previously indicated, Item 3.A) of the Administrative Order required the City of Wood River to submit its current collection of records of combined sewer system operation and maintenance which would document the City's compliance with the requirements of the City's modified NPDES Permit's Special Conditions and the City's State-approved Combined Sewer System Operational Plan.

In response to this Item 3.A) of the Administrative Order, City staff transmitted four file folders containing the City's collection of records documenting the City's combined sewer system operations and maintenance activities on October 21, 2005. On November 7, 2005 USEPA staff informed City staff that the material contained in those four file folders adequately addressed Item 3.A) of the Administrative Order.

The City's combined sewer system operation and maintenance activity record-keeping practices, represented by the material contained in the four file folders which were accepted by USEPA on November 7, 2005, are described in the City's IEPA-approved Combined Sewer System Operational Plan as modified in March 2003.

III. PROPOSED CORRECTIVE ACTION PLAN

In order to properly promote compliance with the requirements of Item 3.B) of the Administrative Order, the City of Wood River must develop, implement, and then follow a Corrective Action Plan which is designed to improve the City's current collection system operations and maintenance practices and record-keeping, with respect to the City's combined sewer system.

Specifically, this Corrective Action Plan must address the following critical aspects of the operation and maintenance of the combined sewer system, which are defined by Paragraph 8. of Special Condition 13 of the City's modified NPDES Permit:

- collection system inspection
- · sewer, catch basin, and regulator cleaning and maintenance
- · collection system replacement, where necessary
- · detection and elimination of illegal connections
- · detection and elimination of dry weather overflows
- · collection system operation to maximize storage capacity
- · collection / treatment system operation to maximize flow treatment

In addition, the USEPA publication "Combined Sewer Overflows – Guidance for Nine Minimum Controls" issued in May 1995 presents useful information regarding the proper operation and maintenance of combined sewer systems, as well as guidance regarding the proper documentation of such activities, which should be incorporated into this Corrective Action Plan.

According to this guidance document, a proper combined sewer system operation and maintenance (O & M) program should contain the following major elements:

- effective personnel organizational structure
- sufficient resources (i.e., equipment, labor hours, funding) dedicated to O & M activities
- planning and budgeting procedures for O & M activities
- a comprehensive list of facilities critical to sewer system operation
- written procedures for routine, periodic maintenance of major equipment and CSO diversion structures
- process for periodic inspection of facilities listed above
- written procedures for responding to emergencies
- polices and procedures for training of O & M personnel
- process for periodic review and update of the O & M program

On the basis of all of the above-outlined considerations, the following text describes the proposed Corrective Action Plan for improving the operations and maintenance of the combined sewer system of the City of Wood River, including record keeping and documentation of the performance of O & M activities.

III. PROPOSED CORRECTIVE ACTION PLAN (continued)

Collection System Inspection

Scope: As stated in the City's IEPA-approved Combined Sewer System

Operational Plan, City staff inspects all sewers, manholes, drains, catch basins, structures, and other major elements of the combined sewer system are inspected at regular intervals for possible excessive inflow

and/or infiltration.

Frequency: As stated in the City's IEPA-approved Combined Sewer System

Operational Plan, City staff performs the above inspection at least once

per year.

Recording: The Sewer Division of the City's Public Services Department will maintain

the records documenting the performance of, and results obtained from, all collection system inspections. A copy of these records will be filed monthly with the Public Services Department, and kept available for future

review by EPA.

Sewer, Catch Basin, and Regulator Cleaning and Maintenance

Scope: As stated in the City's IEPA-approved Combined Sewer System

Operational Plan, City staff inspects, cleans (as necessary), and otherwise

maintains all sewers, manholes, drains, catch basins, structures,

equipment, and other major elements of the combined sewer system at

regular intervals.

Frequency: As stated in the City's IEPA-approved Combined Sewer System

Operational Plan, City staff performs the above-described cleaning and maintenance activities at various frequencies depending on the nature of the collection system element. The various frequencies are outlined in the

City's IEPA-approved Combined Sewer System Operational Plan.

Recording: The Sewer Division of the City's Public Services Department will maintain

the records documenting the performance of, and results obtained from, all collection system inspections. A copy of these records will be filed monthly with the Public Services Department, and kept available for future

review by EPA.

Collection System Replacement

Scope: As stated in the City's IEPA-approved Combined Sewer System

Operational Plan, when City staff's inspection of sewers, manholes, drains, catch basins, structures, and other major elements of the combined sewer system reveal that problems exist in the collection system, the affected element of the collection system is documented photographically and then either repaired or replaced, as appropriate.

III. PROPOSED CORRECTIVE ACTION PLAN (continued)

Collection System Replacement (continued)

<u>Frequency</u>: Collection system replacement activities (unless they involve very large

expenditure of funds) are handled on an as-needed basis, rather than

being scheduled.

Recording: The Sewer Division of the City's Public Services Department will maintain

the records documenting the condition of problem elements of the collection system and detailing the repair or replacement work that was performed to correct the problem. A copy of these records will be filed monthly with the Public Services Department, and kept available for future

review by EPA.

Illegal Connection Detection and Elimination

Scope: As stated in the City's IEPA-approved Combined Sewer System

Operational Plan, when City staff discovers the existence of an illegal connection to the combined sewer system, such illegal connection is disconnected by personnel of the City's Sewer Division of the Public Services Department and appropriate measures are taken to assure that

the illegal connection is not re-established.

Frequency: Illegal connection elimination activities (for obvious reasons) are handled

on an as-needed basis, rather than being scheduled.

Recording: The Sewer Division of the City's Public Services Department will maintain

the records documenting the condition of illegal connections to the collection system, and detailing the disconnection work which was performed to eliminate the illegal connection. A copy of these records will be filed monthly with the Dublic Configure Department, and kept swelleble

be filed monthly with the Public Services Department, and kept available

for future review by EPA.

Dry Weather Overflow Detection and Elimination

As stated in the City's IEPA-approved Combined Sewer System Operational Plan, City staff has previously determined that (because of the relative elevation of concrete diversion dam structure and the configuration of the overflow discharge facilities) dry weather overflows from the City's combined sewer system are prevented from occurring.

Collection System Operation to Maximize Storage Capacity

Note: This topic is addressed in the City's response to Item 4. of the Administrative

Order, which presents a Sewer System Storage Capacity Optimization Plan.

III. PROPOSED CORRECTIVE ACTION PLAN (continued)

Collection / Treatment System Operation to Maximize Flow Treated

Note:

This topic will be addressed in the City's response to Item 7. of the Administrative Order, which will present a Combined Sewer Flow Capture For Treatment Optimization Plan. This response is currently being prepared for submittal prior to the Administrative Order-established deadline of April 4, 2006.

With respect to the O & M Program elements prescribed by the Federal CSO Policy guidance document dated May 1995, the City's IEPA-approved Combined Sewer System Operational Plan as modified in March 2003 provides documentation that the City of Wood River has those O & M Program elements already in place, with the exception of:

- a published organizational structure for the personnel involved in the O & M of the City's combined sewer system
- and 2. a written emergency response procedure

The City of Wood River will develop the two documents listed above, and submit them to USEPA for approval prior to April 2006.

In addition, this Corrective Action Plan must also address the following specific tasks for which (according to Finding No. 15 of the Administrative Order) recorded documentation by the City of Wood River was found to be missing:

- preventive maintenance records
- > infiltration and inflow investigations
- > equipment maintenance records

In fact, the measures (including enhanced documentation and record-keeping practices) which are outlined under the heading above entitled "Collection System Inspection", "Sewer, Catch Basin, and Regulator Cleaning and Maintenance", and "Collection System Replacement".

IV. CORRECTIVE ACTION PLAN IMPLEMENTATION CONSIDERATIONS

The City of Wood River is currently performing many of the combined sewer system operation and maintenance activities hat Federal CSO Policy recommends be implemented to eliminate or reduce the potential for CSO's to occur. The City does understand, though, that there is room for improvement (particularly in the area of organizational structure and emergency response procedure), and the City's response to this Item 3.B) of the Administrative Order details the plans of the City of Wood River to improve their combined sewer system O & M Program.

City staff also understands that they must do a better job of documenting the operations and maintenance practices that the City of Wood River has implemented and is performing. Consequently, City staff will immediately implement the increased nature and extent of their record-keeping related to the performance of operation and maintenance activities which is defined by this Corrective Action Plan in Section III.

APPENDIX Y

Maximization of Flow to the POTW for Treatment Plan for City of Wood River (A.O. Response to Item No. 7.)

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

ITEM NO. 7.

Document(s) Submitted:

Maximization of Flow to the POTW for Treatment

Date Document Submitted:

March 24, 2006

Document Certification:

On behalf of the City of Wood River, Illinois, I hereby certify that all written statements contained in this document, which is submitted to USEPA pursuant to the above-referenced Administrative Order, are true and accurate to the best of my knowledge and belief. I also hereby stipulate that should I find, at any time subsequent to the submittal of this document to USEPA, that any of the written statements contained in this document are false or incorrect, I shall so notify USEPA – Region V.

Certification By: Stephen J. Palen, P.E.

Signature:

Title: Director of Public Services

City of Wood River, Illinois

Date:

2/24/10

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

MAXIMIZATION OF FLOW TO THE POTW FOR TREATMENT

Prepared By

HORNER & SHIFRIN, INC.

MARCH 2006

MAXIMIZATION OF FLOW TO THE POTW FOR TREATMENT

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MAXIMIZATION OF FLOW TO THE POTW FOR TREATMENT

I. PURPOSE AND SCOPE OF SUBMITTAL

A. Purpose

The primary purpose of this Plan for optimizing the City of Wood River's combined sewer system for maximization of flow to the POTW for treatment is to fulfill a requirement stated under Item 7. of an Administrative Order issued by USEPA Region V pursuant to Sections 308 and 309(a) of the Clean Water Act (Docket No. V-W-05-AO-16) and received by the City of Wood River on October 6, 2005.

Specifically, Item 7. of the above-referenced Administrative Order requires that the City shall develop, implement, and submit to USEPA a Plan which is designed to address Finding 19 of the Administrative Order which states that "The City experienced a wet January in 2005, with 4 CSO events reported with a total of 66.5 million gallons (MG) of CSO volume discharged to the Mississippi River; however, the maximum flow rate reported to the STP for the entire month of January was 8.75 MGD (11% lower than the 9.8 MGD design maximum flow rate of the STP). Based on this data, the City had at least 11% of unused STP capacity during the month of January 2005; this unused STP capacity could have been used for treatment of volumes of CSOs that occurred during January of 2005. This situation is not consistent with the 4th NMC, or with Special Condition #13; Items 6.d and 8.g of the modified NPDES Permit, which require that flow to the STP be maximized, in order to minimize CSO events".

B. Scope

The above-described specific requirement essentially defines the scope of the necessary Maximization of Flow to the POTW for Treatment Plan, via reference to Special Condition 13, Paragraphs 6.d. and 8.g of the City's modified NPDES Permit.

Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002 contains two important elements of compliance for the City of Wood River's combined sewer system:

Paragraph 6.d.: requires compliance with the fourth of the "Nine Minimum Controls" contained in the National CSO Control Policy published in the Federal Register on April 19, 1994; which is that maximization of flow to the POTW for treatment must be accomplished. Further, compliance with this Para. 6.d shall be accomplished through the requirements imposed by Paragraphs 4, 5, and 8 of Special Condition 13.

Paragraph 8.g.: requires compliance with the objectives of the City's IEPA-approved Combined Sewer System Operations & Maintenance Plan dated December 18, 1997 and modified in December 2003; including mechanisms and specific procedures, where applicable, to ensure that the collection system is operated to maximize flow to the POTW for treatment.

1. PURPOSE AND SCOPE OF SUBMITTAL (continued)

B. Scope (continued)

The requirement for compliance with Paragraphs 4, 5, and 8. of Special Condition 13 of the City's modified NPDES Permit closely parallels the requirement that the City's Maximization of Flow to the POTW for Treatment Plan address compliance with the City's state-approved revised Combined Sewer System Operational Plan. Paragraph 4. mandates that the collection system shall be operated to optimize transport of wastewater flows and to minimize CSO discharges, Paragraph 5. dictates that the treatment system shall be operated to maximize treatment of wastewater flows, and Paragraph 8. stipulates that the City must meet the objective of their Combined Sewer Operational Plan to reduce the total loading of pollutants entering the receiving stream.

II. CURRENT OPERATION OF COMBINED SEWER SYSTEM AND POTW FOR MAXIMUM TREATMENT OF FLOW

The City of Wood River's sewer system is comprised of approximately 48 miles of combined sewer and 8 miles of strictly sanitary sewers. These sewers receive flows from Wood River, and the Township subdivision of Kendall Hills. All combined and sanitary sewers eventually come together into one 84" combined interceptor sewer which conveys flow in a southeast direction until reaching a diversion dam near the Main Street Pump Station. The diversion dam retains normal dry weather flow, diverting it into a 24" pipe leading to the pump station. From there, the flow is pumped to the wastewater treatment plant via a 14" force main.

The diversion dam height is set so that a maximum of 4.8 MGD is directed through the pump station and to the wastewater treatment plant. As stated in the City's state-approved Combined Sewer System Operational Plan modified in March 2003, the City of Wood River has established the elevation of the concrete diversion dam contained within their 84" combined interceptor sewer at the highest possible elevation to which it can hydraulically be set and NOT cause basement flooding during storm events. In addition, the City's state-approved Combined Sewer System Operational Plan states that 4.8 MGD is the maximum pumping rate that can be achieved with the Main Street Pump Station.

Flows in excess of 4.8 MGD will flow over the diversion dam and continue down the 84" interceptor sewer. Downstream of the diversion dam, the final wastewater treatment 24" gravity sewer is connected. From here, the 84" interceptor sewer carries both wastewater treatment plant effluent and CSO flows to the Wood River Drainage and Levee District Pump Station. The City maintains a manually operated bar screen at the Wood River Drainage and Levee District Pump Station to provide for removal of debris, solids, and floatables prior to discharge into the Mississippi River through the City's only outfall (Outfall A01). The authorization to operate the combined sewer this manner was approved by the Illinois Pollution Control Board on April 6th, 1995 (Opinion and Order of Illinois Pollution Control Board dated April 6, 1995 in the matter of the petition of the City of Wood River for adjusted standard from treatment of overflows and bypass regulations 35 ILL. ADM. Code 306.305(a) and (b); PCB 94-16; See Attachment).

II. CURRENT OPERATION OF COMBINED SEWER SYSTEM AND POTW FOR MAXIMUM TREATMENT OF FLOW (continued)

The wastewater treatment plant has a design average flow of 5.1 MGD and a design maximum flow of 9.8 MGD. However, the wastewater treatment plant not only serves the City of Wood River and the Township of Kendall Hills, but also the Villages of Hartford and South Roxana, as well as the BP Amoco Oil Company in Wood River.

The BP Amoco contribution to the flow received by the wastewater treatment plant is a continuous 3.6 MGD design capacity from shallow well remediation groundwater and deep groundwater. The groundwater pumped by BP Amoco is in conjunction with a groundwater remediation project to draw down the water table in order to minimize horizontal migration offsite of contaminants in the groundwater.

The Villages of Hartford and South Roxana convey wastewater to the Wood River Wastewater Treatment Plant via a pump station owned and operated by the Village of Hartford. The pump station intermittently pumps 1.2 MGD of wastewater to the Wood River Wastewater Treatment Plant through a 10" force main. The wastewater treatment plant does experience higher wet weather flows from the combined sewers in the jurisdictions serviced by the Hartford Pump Station and from inflow sources in these same areas.

Since the Hartford Pump Station only pumps wastewater to the treatment plant intermittently, during times when flow is not being received from the Villages of Hartford and South Roxana, approximately 1.5 MGD capacity in the treatment plant is not being utilized. However, this portion of the treatment capacity of the Wood River Wastewater Treatment Plant is currently dedicated for the sole use of the Villages of Hartford and South Roxana under the Intergovernmental Agreement contained in the City of Wood River's state-approved Combined Sewer System Operational Plan. The Intergovernmental Agreement states, "By paying such charge for capacity in Wood River's Treatment Plant, Hartford and South Roxana are acquiring the permanent right to use this portion of the total capacity of the treatment plant."

The wastewater produced by BP Amoco is continuous, uniform, and ranges between 2.5 and 3.4 MGD. Thus, during times when the full 3.6 MGD is not being received at the wastewater treatment plant from the BP Amoco site, approximately 0.2 to 1.1 MGD capacity in the treatment plant is not being utilized. However, this portion of the treatment capacity of the Wood River Wastewater Treatment Plant is currently dedicated for the sole use of BP Amoco under the Amoco Agreement contained in the City of Wood River's state-approved Combined Sewer System Operational Plan. The Amoco Agreement states "The City guarantees that Amoco shall have the right to 3.6 million gallons average daily flow throughout the term of this Agreement and agrees that Amoco shall have the right to provide the City with additional wastewater if the City has the capacity to accept said additional volume. The combined City/Amoco flow to the Facility shall in no event exceed 6.1 million gallons average daily flow, or a peak flow of 9.8 million gallons per day".

On the basis of the above agreements and current capacity of the City's wastewater treatment facility, the City of Wood River is, under the current state-approved Combined Sewer System Operational Plan, operating the combined sewer system and wastewater treatment plant to maximize the treatment of combined sewer flow during wet weather events.

III. ALTERNATIVES PREVIOUSLY EVALUATED FOR FURTHER MAXIMIZATION OF FLOW TO THE TREATMENT PLANT

A regional facilities plan study entitled "Combined Sewer Overflow Study for Wood River, Illinois, October 1981", was completed for the City of Wood River and the Villages of Hartford and South Roxana through a State Step 1 grant.

The study included infiltration/inflow (I/I) analysis, environmental impact of the combined sewer overflows into the Mississippi River, and analysis of five alternative methods of interception and treatment of the combined sewer flows so as to comply with the CSO regulations. The results of this study led the Illinois Pollution Control Board to grant the City of Wood River a temporary exception to the CSO regulations on September 17, 1987 (See Attachment), and after further investigation, the Board granted the City of Wood River an Adjusted Standard from 35 III. Adm. Code 306.305(a) and 35 III. Adm. Code 306.305(b) on April 6, 1995 (See Attachment). The alternatives developed in this engineering study report were completed before the wastewater treatment plant was expanded to an average design flow of 5.1 MGD with a peak design flow of 9.8 MGD. The alternatives considered were as follows:

Alternative No. 1:

Constitutes the "no action" alternative, which would result in an estimated 242,100 pounds of BOD per year in the overflow. The Illinois Pollution Control Board concluded that this alternative was not justifiable in light of the Illinois Environmental Protection Agency's recommendation for implementation of Alternative No. 2.

Alternative No. 2:

Upon completion of the new regional treatment facility, utilize the entire capacity of the new interceptor sewer and preliminary treatment structure rather than limit the flow in the interceptor to the present intercepting capacity of 2.5 MGD. The installation of a bar screen at the Levee District pumping station to remove trash and floatable material from the CSO was also part of this alternative. Illinois EPA and the City of Wood River recommended implementation of this alternative over the other five alternatives evaluated. The total estimated cost to implement this option in 1981 dollars was \$475,000.

Alternative No. 3:

Require the construction of facilities to convey and treat an additional 10 times the design dry weather flow beyond the 2.5 times dry weather flow being intercepted and given full treatment at the regional treatment facility, resulting in the interception and treatment of overflows of up to 24 MGD. Projected cost for this alternative was approximately \$2.2 million in 1981 dollars.

Alternative No. 4:

Provide full compliance with the Pollution Control Board's regulations by utilizing all the improvements specified in Alternative Nos. 2 and 3, but would also intercept, store, and treat the entire first flush. Projected cost for this alternative was approximately \$4.8 million in 1981 dollars. The Illinois Pollution Control Board concluded that this alternative was not economically justifiable, based on the size of the City of Wood River in relation to the potential benefit that could be realized in the receiving stream.

III. ALTERNATIVES PREVIOUSLY EVALUATED FOR FURTHER MAXIMIZATION OF FLOW TO THE TREATMENT PLANT (continued)

Alternative No. 5:

Consider the total separation of Wood River's sewer system to eliminate combined sewer overflows. Projected cost for this alternative was approximately \$23 million in 1981 dollars. The Illinois Pollution Control Board concluded that this alternative was not economically justifiable, based on the size of the City of Wood River in relation to the benefit realized in the receiving stream.

Alternative No. 6:

Utilize the existing Amoco 150 MG treatment lagoons. This analysis was not part of the original engineering study, but was subsequently considered upon request of the Illinois Pollution Control Board. It was determined that the lagoons could not be made available by Amoco for use by the City, and implementation of this Alternative would cost approximately \$3.5 million in 1993 dollars with annualized capital and operating costs of approximately \$431,000 in 1993 dollars. Therefore, the Board determined that this alternative was not technically feasible.

After reviewing the alternatives listed above, the Illinois Pollution Control Board concurred with the Illinois EPA's recommendation to implement Alternative No. 2, which included the interception and treatment of up to 4.8 MGD of flow, as well as screening of the overflows prior to discharge. The Illinois Pollution Control Board deemed that this alternative would significantly reduce the impact of the CSO on the Mississippi River at a reasonable cost to the City of Wood River.

IV. OPTIONS TO BE EVALUATED FOR FURTHER MAXIMIZATION OF FLOW TO THE TREATMENT PLANT

Several other options appear to exist for maximizing the flow to the Wood River treatment plant, which were not included in the 1981 engineering report. The analysis of these options, which may help to reduce the frequency and duration of CSO events, will be completed as part of the development of the Long Term Control Plan for the City of Wood River. These options are described below:

Option A:

Remove storm water sources from the combined sewers tributary to the Hartford Pump station. Implementation of this option would require negotiations and an agreement between the Villages of Hartford and South Roxana with the City of Wood River to implement a schedule and determine cost apportionment of the separation of storm sewers and sanitary sewers. The current Intergovernmental Agreement, as part of the City of Wood River's state-approved Combined Sewer System Operational Plan, would need to be modified to account for the new Agreement and operating conditions of the system. In addition, the diversion structure and Main Street Pump Station would require modifications to allow more flow to be diverted to the wastewater treatment plant.

IV. OPTIONS TO BE EVALUATED FOR FURTHER MAXIMIZATION OF FLOW TO THE TREATMENT PLANT (continued)

Option B:

Remove storm water sources from the combined sewers tributary to the Main Street Pump Station. Several opportunities exist to alleviate basement backups and surface flooding during rain events by removing storm water sources to the combined sewer system in several strategic locations of the City. Work is currently underway at St. Louis Avenue, where storm water is being diverted to Helmkamp Lake. By diverting the St. Louis Avenue storm water, a storm water retention ditch becomes available for use. The City hopes to redirect storm water from 60-80 inlets along Madison Avenue to this ditch in a future project. However, the Madison Avenue Project will require the cooperation of all vested parties including the Illinois Department of Transportation. Opportunity also exists at Central and Hawthorn Streets to eliminate several storm water connections from the combined sewer system.

Option C:

Dampen (reduce) well pumping rates at BP Amoco during wet weather events. Implementation of this option would require investigation into the implications with BP Amoco and the regulating agencies involved in the remediation project. In addition, the agreement with BP Amoco would need to be re-negotiated, and the current Amoco Agreement, as part of the City of Wood River's state-approved Combined Sewer System Operational Plan, would need to be modified to account for the new operating conditions of the system. Due to the separate primary treatment trains for municipal wastewater and BP Amoco groundwater. improvements to the municipal primary treatment train would be necessary in order for the wastewater treatment plant to treat more wet weather flow. These improvements include increasing clarification and sludge handling abilities. The diversion structure, screening and grit removal facilities, and Main Street Pump Station would also require modifications to allow more flow to be diverted to the wastewater treatment plant. The addition of a controls system would also be necessary to ensure that the pumping rate from BP Amoco was decreased proportionally as flow to the wastewater treatment plant increased due to wet weather.

Option D:

Increase the capacity of the wastewater treatment plant. Implementation of this option would require upgrades to existing facilities or the construction of new facilities to handle additional volumes of combined sewer flow. In addition, the diversion structure and Main Street Pump Station would require modifications to allow more flow to be diverted to the wastewater treatment plant. A modified NPDES permit would also need to be approved by the regulating authorities.

IV. OPTIONS TO BE EVALUATED FOR FURTHER MAXIMIZATION OF FLOW TO THE TREATMENT PLANT (continued)

Option E:

Build storage lagoons on the BP Amoco site or other property adjacent to the existing wastewater treatment plant. Implementation of this option would require negotiations and an agreement between BP Amoco and/or other private land owners with the City of Wood River to determine if the land was available for use, and the cost to be incurred by the City for use of the land. New storm water sewers would need to be constructed to direct the wet weather flows to the new lagoons. In addition, a new pump station and force main would need to be constructed to convey the storm water back to the treatment plant following a wet weather event.

V. SUMMARY AND CONCLUSIONS

Under the state-approved Combined Sewer System Operational Plan, The City of Wood River is currently operating the combined sewer system and wastewater treatment plant to maximize the treatment of combined sewer flow. The adjusted standard from 35 Ill. Adm. Code 306.305(a) and (b) was granted by the Illinois Pollution Control Board after reviewing the relevant engineering data concerning environmental impact of the CSO and the lack of sensitive areas. The Illinois Pollution Control Board further deemed that interception and treatment of up to 4.8 MGD of flow, as well as screening of the overflows prior to discharge would significantly reduce the impact of the CSO on the Mississippi River at a reasonable cost to the City of Wood River.

Although the characteristics of the CSO discharges by the City of Wood River have not changed since the granting of the adjusted standard from 35 III. Adm. Code 306.305(a) and (b) by the Illinois Pollution Control Board (which would imply that Wood River's CSO discharges still do not have a high reasonable potential to cause or contribute to violations of applicable water quality standards or use impairment), the City of Wood River must comply with USEPA's Administrative Order. As part of compliance with that Administrative Order, several other options to maximize the flow to the Wood River Wastewater Treatment Plant, which could serve to reduce the frequency and duration of CSO events, will be analyzed as part of the development of the Long Term CSO Control Plan.

ILLINOIS POLLUTION CONTROL BOARD September 17, 1987

PCB 86-6

MR. LON SMITH APPEARED ON BEHALF OF THE CITY OF WOOD RIVER;

MR. RICHARD WARRINGTON, JR. APPEARED ON BEHALF OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

OPINION AND ORDER OF THE BOARD (by J.D. Dumelle):

This matter comes before the Board upon a January 6, 1986, joint petition of the City of Wood River (Wood River) and the Illinois Environmental Protection Agency (Agency) for an exception to 35 Ill. Adm. Code 306.305(a) and (b) of the Board's combined sewer overflow (CSO) regulations based on minimal discharge impact. Hearing was held on June 12, 1986, at which exhibits and testimony were presented. The Hearing Officer issued Orders on February 6 and July 16, 1987, requesting additional information to which Wood River and the Agency responded on April 9, and August 17, 1987.

Wood River contends that the existing overflows from its combined storm and sanitary sewer system have minimal impact on the water quality of the Mississippi River (the receiving stream) and do not restrict stream use, and that construction of CSO treatment facilities at an estimated cost of \$6.0 million would produce little benefit. For the reasons described below, the Board finds that Petitioners have made the showing requisite for granting a temporary exception. Relief will accordingly be granted, subject to conditions as stipulated to by Petitioners and time limitations deemed necessary by the Board.

BACKGROUND

Wood River, population 12,446 is located on the Mississippi River about seven miles north of Interstate 270. Wood River is served by 36.5 miles of combined storm and sanitary sewers and 6.5 miles of separate sanitary sewers. The combined sewer collection system outlets to the Mississippi River through a single 84-inch outfall sewer which has an estimated capacity of 168.5 million gallons per day (MGD). Upstream of the outfall

point, the outfall sewer is routed by gravity through a pumping station operated by the Wood River Drainage and Levee District. At high river stages, the gravity outlet is blocked by sluice gates, located in the pumping station, and the flow is pumped to the pumping station "head box" and then out through the pressurized 84-inch sewer into the river. The dry weather flow is treated by a primary plant constructed in 1962 with a design capacity of 1.73 MGD. The combined sewer overflow (CSO) is being discharged into the Mississippi River directly without treatment.

A 72-inch diameter sewer belonging to the major local industry, Amoco Oil Company (Amoco) provides for the collection of industrial wastes, storm water, and combined sewer overflows originating within the Amoco property. The 72-inch sewer acts as a supply sewer to the pumping station which pumps the normal flow to the soon to be completed Wood River Regional Treatment Facility (discussed below) and also as an outlet sewer to direct storm water flows into large storage lagoons owned by Amoco. The lagoons have a storage capacity of 150 million gallons. The storm water is then drawn back through the 72-inch sewer and treated at the Regional facility. The joint petitioners contend that these lagoons are used also as a storage area for untreated dry weather flows from Amoco and partially treated flows from the other Regional plant users during plant shutdown or malfunction.

In 1976, a State Step 1 grant was offered to Wood River to carry out a regional facilities plan study for the four communities of Wood River, Hartford, Roxana, and South Roxana. Wood River was designated the lead agency. As part of this study, an infiltration/inflow (I/I) analysis was conducted for Wood River's combined sewer system. It found that there were no significant I/I problems, and the I/I report had been completed and approved by the Agency. It was concluded that the most cost effective water pollution control strategy for Wood River would be to adopt a regional waste disposal plan which would include the upgrading of the existing primary treatment system to a 2.46 MGD secondary activated sludge plant. The new plant will provide treatment of the dry weather flows collected from Wood River, Hartford and South Roxana, and will consist of a 5.1 MGD design average flow second treatment plant with a peak flow of 9.8 The new regional facility will not be large enough to treat all of the combined sewer overflow from Wood River, but will have facilities for the interception of up to 4.8 MGD. The Agency, as a condition of the joint petition, has required that Wood River (a) intercept and provide full treatment for this 4.8 MGD of combined sewer overflow and (b) provide for screening of overflows in the 84-inch sewer prior to discharge. The Agency notes that Wood River has met condition (a) above by constructing intercepting and treatment facilities at a cost of \$390,000, 75% of which was funded through an Agency grant. The Agency further notes that Wood River has proposed to meet condition (b) above by constructing a bar screen facility at the Wood River Drainage and Levee District pumping station at a cost of approximately \$85,000.

The primary use of the Mississippi River in the vicinity of the 84-inch CSO discharge point is barge transportation. Immediately upstream and downstream of the discharge point are barge loading, unloading, and repair facilities. The general area is alleged to be a general mooring area. These docking facilities and the movement of tows generally preclude other uses of the River within the discharge area. Further downstream numerous communities utilize the River for their potable water supplies. The first intake of River water for public water supplies purposes, downstream of Wood River's CSO discharge, is the Illinois American Water Company's intake, approximately seven miles below Wood River.

ENVIRONMENTAL IMPACT

The impact of the overflows on the Mississippi River prior to completion of the new treatment facilities was analyzed in the "Combined Sewer Overflow Study for Wood River, Illinois, October, 1981." The study indicated that the Wood River CSO has a negligible effect on the water quality in the Mississippi River, both on a worst condition basis and on an average annual basis, due primarily to the diluting effect of the river on the pollutants discharged from the CSO. During the worst conditions event, consisting of a 1-year frequency storm water overflow coincident with a 7 day 10 year low flow in the river, the effect on the Mississippi River is an increase of 0.21% in water volume, an increase of 0.9% in total suspended solids, and an increase of 3.5% in BOD. Using the average annual combined sewer overflow and the lowest recorded average annual river flow, (30,540 MGD in 1940) the effect on the river over an entire year is a negligible increase in water volume, an increase of 0.007% in total suspended solids, and an increase of 0.026% in BOD. The first flush analysis indicates a first flush volume of 2.2 MG. comparative purposes the entire first flush is only approximately 0.016% of the one-day low flow volume of the river. The joint petitioners believe that the new treatment facilities will reduce these figures slightly, and that these effects probably could not be detected through field testing. The joint petitioners further assert that a visual inspection of the river bank in the area of the discharge point indicated that there was no effect on the river or the river bank. There were no visible signs of sludge deposits or floating debris, and no sewage related odors in the vicinity of the overflow.

The combined sewer overflow study analyzed five alternative methods of interception and treatment of the combined sewer flows so as to comply with the Board's CSO regulations. Alternative No. 1 constitutes the "no-action" alternative. The estimated amount of BOD in the overflow is 242,100 pounds per year on an

average annual basis. Alternative No. 2 would, upon completion of the new regional treatment facility, utilize the entire capacity of the new interceptor sewer and preliminary treatment structure rather than limit the flow in the interceptor to the present intercepting capacity of 2.5 MGD. Also, a manually cleaned bar screen would be added at the Levee District pumping station to remove trash and floatable material from the CSO. Alternative No. 3 would require the construction of facilities to convey and treat an additional 10 times the design dry weather flow beyond the 2.5 times dry weather flow being intercepted and given full treatment at the regional treatment facility, resulting in the interception and treatment of overflows of up to The projected cost for this alternative is \$2,171,000. Alternative No. 4 would provide full compliance with Board regulations by utilizing all the improvements specified in Alternatives Nos. 2 and 3, but would also intercept, store, and treat the entire first flush. The projected cost for this alternative is \$4,768,000. Lastly, Alternative No. 5 considered the total separation of Wood River's sewer system to eliminate combined sewer overflows. It was determined that the \$23,000,000 project would be prohibitive from a cost standpoint. Apparently, the joint petitioners have opted to employ alternative No. 2, as the Agency has required interception and treatment of the full 4.8 MGD capacity for the combined sewer overflow and the installation of the bar screen. The total projected cost (in 1981 dollars) for this alternative was \$443,400. The \$390,000 already spent on the regional facility and the proposed \$85,000 for the bar screen result in a total expenditure of \$475,000.

Based on the 1981 CSO study, the Board concludes that the impact from the Wood River CSO is minimal. While the study indicated that there was a coloration difference at the outfall point, this difference can be attributed to the clearer color of the effluent from the treatment plant in relation to the much browner color of the silt carried by the Mississippi. The Board notes, however, that none of the alternatives considered the utilization of the Amoco 150 MG treatment lagoons. These large lagoons offer space in which to store first flush and an additional 10 times dry weather flow for future treatment.

On July 16, 1987, the Board requested more information as to the ownership and usage of these large lagoons. The joint petitioners responded on August 17, 1987, with a copy of the 1982 Operating Agreement, by and between Wood River and Amoco, which determines the rights and responsibilities of Wood River as to the storage lagoons and with estimated costs for the construction of attendant facilities. The joint petitioners reiterated that the lagoons function as a storage area for the 72-inch combined sewer, which is the outlet for surface drainage for the majority of the Amoco Refinery complex, and for untreated dry weather flows from Amoco and partially treated flows from other Regional plant users. In support of this position, the joint petitioners

pointed to paragraph 8 on pages 17, 18 and 19 of the Operating Agreement, which specifically addresses the storage lagoons.

The Board recognizes that Wood River is presently precluded from employing the treatment lagoons in its CSO operations under the terms of the Operating Agreement. However, the Board is not inclined to assume that this Operating Agreement cannot be changed. Perhaps with further negotiation, Wood River may acquire access to the lagoons for CSO storage and treatment.

The Board also recognizes that the cost of facilities to employ the lagoons, estimated by the joint petitioners to be \$2,830,000 may be high. The Board notes that the joint petitioner's August 17, 1987, response provides the only indication of what facilities would be required to implement the lagoons and at what cost. The Board does not understand why all of the facilities listed in the joint petitioner's response are deemed necessary when it appears that some of the facilities are already in place. Because the joint petitioners have preferred to not consider this as an alternative, the record is insufficient for the Board to determine that the Amoco lagoons cannot be used to alleviate Wood River's combined sewer overflow problems. Nor can the Board determine that the costs would be Thus, the Board is not persuaded to grant a permanent exception, resulting in the permanent discharge to untreated sewage into the Mississippi River, at this time. However, the Board will grant Wood River a temporary exception for five years, in which time Wood River is to seriously consider using the lagoons as an alternative and to devise a costeffective method of implementation. If on September 30, 1991, it wishes to pursue the matter, Wood River may submit an amended petition for exception which details: (1) Wood River's attempts to acquire usage of the lagoons; (2) if the lagoons cannot be employed, the specific reason(s) those attempts were unsuccessful; (3) if the lagoons can be employed, a plan for the implementation of the lagoons into the sewer system, with supporting economical and technical data; and (4) continued justification for the granting of exception (the Board notes that the record in this proceeding may be incorporated by reference into that docket).

In examining the alternatives considered by the joint petitioners, the Board concludes that alternative Nos. 4-5 are not justified economically. While these alternatives may result in discharge that complies with applicable effluent standards, it would be unreasonable to impose the burden of the costs (No. 4 - \$4,768,000, and No. 5 - \$23,000,000) on a city the size of Wood River (pop. 12,446) in relation to the benefit realized in the receiving stream. The joint petitioners allege that Alternative No. 3 (\$2,171,000) is also not justified economically. The Board reserves judgment on the reasonableness of this amount until Wood River submits the amended petition described above. At that

time, the Board will know whether the lagoons can be used as an alternative and will know actual statistics with respect to the new regional facility's operations (i.e., actual interception of Wood River's combined sewer overflow rather than predicted amounts). The Board can make a more reasoned determination once it possesses such information. Alternative No. 1, the "no-action" alternative is not justified in light of the Agency's recommendation (Alternative No. 2), which the Agency believes will solve Wood River's CSO problem at a savings of several million dollars. The Board concurs. Interception and treatment of up to 4.8 MGD of flow, in addition to screening of the overflows prior to discharge, will significantly reduce the impact on the Mississippi River. Further, the cost is reasonable.

In conclusion, the Board finds that the evidence in the record supports granting Wood River a temporary exception to 35 Ill. Adm. Code 306.305(a) and (b), subject to conditions. The Board notes that the impact of Wood River's CSO discharge on the water quality of the Mississippi River will be minimal. In addition, the Board notes that the cost of alternative controls, such as they have been considered, are high.

ORDER

The City of Wood River is hereby granted a temporary exception from 35 Ill. Adm. Code 306.305(a) as such provision relates to first flush of storm flows and 306.305(b) for its combined sewer overflows into the Mississippi River, subject to the following conditions:

- 1. This grant of temporary exception shall terminate on September 30, 1992.
- During this temporary exception period, Wood River shall, as a minimum:
 - a) Intercept and provide full treatment for up to 4.8 MGD flow in the 84-inch combined sewer;
 - b) Provide for screening of the overflows in the 84inch sewer prior to discharge;
 - c) Demonstrate a good faith attempt to acquire the usage of the Amoco Lagoon for storage and treatment of excess flows and report on an annual basis such demonstrations to the Board and the Agency;
 - d) Submit the reports described in Subsection (c) not later than 30 days after the end of a calendar year.

- 3. This grant of exception does not preclude the Agency from exercising its authority to require as a permit condition a) a CSO monitoring program sufficient to assess compliance with this exception and any other Board regulations, including Section 306.305(c); and b) other controls if needed for compliance, including compliance with water quality standards.
- 4. This grant of exception is not to be construed as affecting the enforceability of any provisions of this exception, other Board regulations or the Act.

IT IS SO ORDERED.

Dorothy M. Gynn, Clerk

Illinois Poliution Control Board

ILLINOIS POLLUTION CONTROL BOARD April 6, 1995

IN THE MATTER OF:)
DESTRUCTION OF THE STEW OF MOOD DIVIDE)
PETITION OF THE CITY OF WOOD RIVER) AS 94-16
FOR ADJUSTED STANDARD FROM) (Adjusted Standard-Water)
TREATMENT OF OVERFLOWS AND BYPASS)
REGULATIONS 35 ILL. ADM. CODE)
306.305(a) and (b))

OPINION AND ORDER OF THE BOARD (by E. Dunham):

This matter comes before the Board on a petition for adjusted standard filed on October 27, 1994 by the City of Wood River. The petition seeks an adjusted standard for the combined sewer overflow treatment requirements of 35 Ill. Adm. Code 305.306(a) and (b). Petitioner waived its right to hearing on the petition and no request for a hearing was received. Therefore, no hearing was held in this matter. The Illinois Environmental Protection Agency (Agency) filed its response to the petition on February 27, 1995.

Wood River is requesting an adjustment from Section 306.305 so that the City will not be required to provide treatment of the first flush of storm flows or provide a minimum of primary treatment and disinfection of an additional ten times the average dry weather flow from the City's combined sewer overflows, provided the City intercept and provide full treatment for up to 4.8 million gallons per day (MGD) flow in the 84 inch combined sewers and the City provide for screening of the overflow in the 84 inch combined sewer prior to discharge.

BACKGROUND

Wood River is a city with a population of 11,500 people located in Madison County along the Mississippi River. (Pet. at 1.) The City is served by 36.5 miles of combined storm and sanitary sewers, together with 7.5 miles of separate sanitary sewers. (Pet. at 1.) The combined sewer collection system outlets to the Mississippi River through a single 84 inch outfall sewer with an estimated capacity of 168.5 MGD. (Pet. at 1.) The primary use of the Mississippi River in the vicinity of the discharge is barge transportation. (Pet. at 2.)

Wood River has constructed a regional waste disposal plant which includes secondary treatment for surrounding communities of the Village of Hartford, Village of South Roxana, and unincorporated areas in the Township of Wood River. (Pet. at 2.) The treatment facility has a peak flow capacity of 9.8 MGD and is not large enough to treat all the flows from Wood River's combined sewers. (Pet. at 2.) The plant has facilities for the interception and full treatment of up to 4.8 MGD. (Pet. at 2.) Facilities have been constructed to provide for the screening of

all overflows in the 84 inch sewer prior to discharge. (Pet. at 2.)

On December 30, 1985, the City of Wood River and the Agency filed a joint petition for an exception to the CSO regulations. On September 17, 1987, the Board granted the City of Wood River a temporary exception for 35 Ill. Adm. Code 306.305(a) as such provision relates to the first flush of storm flows and 306.305(b) for its combined sewer overflows into the Mississippi River. (Joint Petition of Wood River and Illinois Environmental Protection Agency (Sept. 17, 1987), PCB 86-6.) The temporary exception expired by its own terms on September 30, 1992. The Board's order also contained the requirements that Wood River intercept and provide full treatment for up to 4.8 MGD; provide for screening of the overflow; and attempt to acquire the usage of Amoco's lagoons for storage and treatment of excess flows.

Wood River has provided the facilities for interception and treatment of up to 4.8 MGD and has provided for the screening of overflow in compliance with the Board's order. (Pet. at 4.) Wood River has also studied the recommended alternative of utilizing the Amoco lagoon. (Pet. Exh. B.) The report of the study concluded that this treatment alternative would not be available at all times and was not economically justifiable. (Pet. at 4.) In a September 1994 letter to Wood River, Amoco indicated that Amoco's needs and uses of the lagoons would not allow any additional capacity to be utilized by Wood River. (Pet. Exh. D.)

The petition for adjusted standard requests that the level of CSO interception and treatment established on a temporary basis in PCB 86-6 be made permanent through an adjusted standard.

REGULATORY FRAMEWORK

The Board's CSO regulations are contained in 35 Ill. Adm. Code 306. The CSO regulations were amended in R81-17, 51 PCB 383, March 24, 1983. Section 306.305(a) and (b) provide as follows:

Section 306.305 Treatment of Overflows and Bypasses

All combined sewer overflows and treatment plant bypasses shall be given sufficient treatment to prevent pollution, or the violation of applicable water standards unless an exception has been granted by the Board pursuant to Subpart D.

Sufficient treatment shall consist of the following:

a) All dry weather flows, and the first flush of storm flows as determined by the Agency, shall meet the

applicable effluent standards; and

b) Additional flows, as determined by the Agency but not less than ten times average dry weather flow for the design year, shall receive a minimum of primary treatment and disinfection with adequate retention time; and

Section 28.1(a) of the Illinois Environmental Protection Act (the Act) provides that after adopting a regulation of general applicability, the Board may grant an adjusted standard for persons who can justify such an adjustment. Section 28.1(b) provides that the Board may specify a level of justification required of a petitioner for an adjusted standard. Although the Board's regulations at 35 Ill. Adm. Code 306 do not contain a level of "justification" for an adjusted standard, the Board has held that the substantive requirements of 35 Ill. Adm. Code 306. Subpart D are to be used for justification of an adjusted standard from the regulations at 35 Ill. Adm. Code 305. (Petition of the City of Jacksonville for Adjusted Standard From 35 Ill. Adm. Code 306.305(b), AS 90-1, August 9, 1990; and City of Oglesby v. Illinois Environmental Protection Agency, PCB 86-3, February 6, 1992). Therefore Section 28.1(b) of the Act applies to this petition for adjusted standard.

TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS

In support of its petition Wood River references a 1981 study employed to justify the temporary exception in <u>Joint Petition of Wood River and Illinois Environmental Protection Agency</u> (Sept. 17, 1987), PCB 86-6. (Exh. A.) This study is pertinent to the present petition as the character of the water shed area and the makeup of the sewer system have not changed to any extent since the 1981 CSO study.

As part of the 1981 study, Wood River evaluated five CSO treatment alternatives. Of the alternatives studied the Board found that interception and treatment of up to 4.8 MGD of the flow, in addition to screening provided the best solution to Wood River. The Board found that two of the alternatives were not justified economically for a city the size of Wood River. The Board also found that the "no action" alternative was not justified considering the Agency's recommendation. The Board determined that more information was needed on the alternative of using Amoco's lagoons before the Board could determine if this alternative is technically feasible and economically justified.

Implementing the use of Amoco's lagoons would cost \$3,473,600 in 1993 dollars. The annualized capital and operating cost would be \$431,083. It is anticipated that these costs would increase residential sewer rates by 80%. After further review of the use of the lagoons, it has been determined that the lagoon

system will not be available for use by the City. Therefore, the alternative of using the lagoon system is not technically feasible.

CONSISTENCY WITH FEDERAL LAW

Section 306.305 implements Section 13 the water quality standards developed by the State pursuant to the Federal Clean Water Act (33 USC §1251 et seq.). The Agency asserts that the recommended adjusted standard is consistent with Federal law. (Rec. at 13.)

ENVIRONMENTAL IMPACT

The effect of the present CSO discharge on the water quality in the receiving stream remains difficult to measure due to the large size and variable flow rate of the receiving water. (Rec. at 9.) In granting the temporary exception to the City, the Board found that the impact from the Wood River CSO discharge is minimal. (Joint Petition of Wood River and Illinois Environmental Protection Agency (Sept. 17, 1987), PCB 86-6.)

The Agency believes that there will be no measurable adverse effect on the Mississippi River from the adjusted standard. (Rec. at 13.) The Agency asserts that no designated or attained uses of the waterway will be impaired by the adjusted standard. (Rec. at 13.)

AGENCY RECOMMENDATION

The Agency recommends granting the adjusted standard with conditions. (Rec. at 2.) The Agency recommends additional language for the adjusted standard to insure that the City remains in compliance with federal CSO policy.

CONCLUSION

The Board finds that the City has demonstrated that meeting the provisions of 35 Ill. Adm. Code 306, the rule of general applicability, is not technically feasible nor economically reasonable. Further, the City has demonstrated that an adjusted standard which excepts the combined sewer overflow from treatment will not have an adverse environmental effect. The Agency's response indicates that an adjusted standard is warranted. Therefore, the Board grants the City the requested adjusted standard from 35 Ill. Adm. Code 306(a) and (b) with the conditions recommended by the Agency.

This opinion constitutes the Board's findings of fact and conclusions of law in this matter.

ORDER

Pursuant to Section 28.1(b), the Board hereby grants an adjusted standard from 35 Ill. Adm. Code 306.305(a) and (b) to the City of Wood River. The following standard becomes effective on the date of this order:

The City of Wood River is hereby granted an Adjusted Standard from 35 Ill. Adm. Code 306.305(a) as such provisions relate to the first flush of storm flows and 35 Ill. Adm. Code 306.305(b) for its combined sewer overflows into the Mississippi River, subject to the following conditions:

- Wood River shall, as a minimum:
 - a) Intercept and provide full treatment for up to 4.8 MGD flow in the 84-inch combined sewer;
 - b) Provide for screening of the overflows in the 84inch sewer prior to discharge.
- 2. The Agency shall revise Wood River's NPDES permit consistent with Agency permitting policies to implement the federal CSO policy. Wood River shall comply with the federal CSO policy (published in the Federal Register on April 19, 1994) as implemented through their NPDES permit.
- 3. This grant of an adjusted standard does not preclude the Agency from exercising its authority to require as a permit condition a CSO monitoring program sufficient to assess compliance with this adjusted standard and any other Board regulations and other controls, if needed, for compliance with water quality standards.
- 4. This grant of an adjusted standard is not to be construed as affecting the enforceability of any provisions of this adjusted standard, other Board regulations or the Environmental Protection Act, 415 ILCS 5/1 et seq. (1992), the Clean Water Act, 33 U.S.C. Section 1251 et seq. or any other applicable federal regulation.

IT IS SO ORDERED.

Section 41 of the Environmental Protection Act, (415 ILCS 5/41 (1992)), provides for appeal of final orders of the Board within 35 days of the date of service of this order. The Rules of the Supreme Court of Illinois establish filing requirements. (See also 35 Ill. Adm. Code 101.246, Motion for Reconsideration.)

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was
adopted on the day of Goril,
1995, by a vote of
Dorothy M. Gun
Dorothy M. gunn, Clerk
Illinois Póllution Control Board

APPENDIX Z

Corrective Action Plan For Improving Combined Sewer System Pollution Prevention Practices Record-Keeping for City of Wood River (A.O. Response to Item No. 5.B.)

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

(TEM NO. 5.B)

Document(s) Submitted:

Corrective Action Plan For Improving Combined Sewer System

Pollution Prevention Practices Record-Keeping

Date Document Submitted:

January 3, 2006

Document Certification:

On behalf of the City of Wood River, Illinois, I hereby certify that all written statements contained in this document, which is submitted to USEPA pursuant to the above-referenced Administrative Order, are true and accurate to the best of my knowledge and belief. I also hereby stipulate that should I find, at any time subsequent to the submittal of this document to USEPA, that any of the written statements contained in this document are false or incorrect, I shall so notify USEPA — Region V.

Cartification By: Stephen J. Palen, P.E.

Signature:

Director of Public Services

City of Wood River, Illinois

Date:

Title:

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CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

CORRECTIVE ACTION PLAN

FOR

IMPROVING THE CITY'S

POLLUTION PREVENTION PRACTICES

RECORD-KEEPING

Prepared By
HORNER & SHIFRIN, INC.

December 2005

CORRECTIVE ACTION PLAN FOR IMPROVING THE CITY'S POLLUTION PREVENTION PRACTICES RECORD-KEEPING

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CORRECTIVE ACTION PLAN FOR IMPROVING THE CITY'S POLLUTION PREVENTION PRACTICES RECORD-KEEPING

I. PURPOSE AND SCOPE OF CORRECTIVE ACTION PLAN

A. Purpose

The primary purpose of this Corrective Action Plan for improving the pollution prevention practices record-keeping of the City of Wood River, Illinois is to fulfill a requirement stated under Item 5.B) of an Administrative Order issued by USEPA Region V pursuant to Sections 308 and 309(a) of the Clean Water Act (Docket No. V-W-05-AO-16) and received by the City of Wood River on October 6, 2005.

Specifically, Item 5.B) of the above-referenced Administrative Order requires that the City shall submit to USEPA a Corrective Action Plan which addresses how the City will improve their keeping of records of pollution prevention practices according to listed task, scope of task, and required frequency.

B. Scope

The above-described specific requirement essentially defines the scope of the necessary Corrective Action Plan, via references to both Special Condition 13, Paragraphs 6.g. and 14. of the City's modified NPDES Permit, and the City's State-approved revised Combined Sewer System Operational Plan.

Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002 contains three important elements of compliance for the City of Wood River's combined sewer system:

Paragraph 6.g.: requires compliance with one of the "Nine Minimum Controls"

contained in the National CSO Control Policy published in the Federal Register on April 19, 1994; which is that pollution prevention programs focusing on source control activities must be established. Furthermore, compliance with this Item shall be met through the requirements imposed by Paragraph 6 of Special Condition 13.

Paragraph 6.:

requires compliance with the objectives of the City's IEPA-approved Pollution Prevention Plan dated December 18, 1997 which is contained within the City's Combined Sewer System Operational Plan, as modified in March 2003.

Paragraph 14.: summarizes compliance dates by which submittals to IEPA were due.

I. PURPOSE AND SCOPE OF CORRECTIVE ACTION PLAN (continued)

B. Scope (continued)

The requirement for compliance with Paragraph 6. of Special Condition 13 of the City's modified NPDES Permit closely parallels the requirement that this Corrective Action Plan address compliance with City's State-approved revised Combined Sewer System Operational Plan.

In addition, the past pollution prevention record-keeping practices of the City of Wood River (which Administrative Order Item 5.A) required the City to also submit) serve to define the scope of this Corrective Action Plan, as well.

II. CURRENT RECORD-KEEPING PRACTICES

As previously indicated, Item 5.A) of the Administrative Order required the City of Wood River to submit its current collection of records of pollution prevention practices which would document the City's compliance with the requirements of the City's modified NPDES Permit's Special Conditions and the City's State-approved Combined Sewer System Operational Plan.

In response to this Item 5.A) of the Administrative Order, the City acknowledged that staff inadvertently failed to keep any records relating to its pollution prevention practices as required by the City's modified NPDES Permit's Special Conditions. However, several documents which clearly demonstrate that pollution prevention practices are being followed were transmitted as part of the compliance with Item 5.A) of the above-referenced Administrative Order.

The documents submitted show that the following pollution prevention practices are being executed:

Community Newsletter: The Wood River community newsletter, *Pipeline*, contains

information on public education including proper disposal of yard wastes, bulk solids disposal, and volunteer litter clean-

up projects.

Public Services Website: The City's Public Services Department website contains

information on trash and bulk item disposal, recycling, and

yard waste.

NOI for Phase II Stormwater: The pollution prevention practices which are currently

implemented by the City in fulfillment of their NOI for Phase II Stormwater Regulations also meet many of the goals outlined for a Pollution Prevention Plan by the City's modified NPDES Permit's Special Conditions. Records pertaining to

the pollution prevention practices which are currently implemented by the City in fulfillment of the NOI Phase II Stormwater Permit are kept separately by the City's Public

Services Department.

III. PROPOSED CORRECTIVE ACTION PLAN

In order to properly promote compliance with the requirements of Item 5.B of the Administrative Order, the City of Wood River must develop, implement, and then follow a Corrective Action Plan which is designed to improve the City's current pollution prevention practices and record-keeping, with respect to the City's combined sewer system.

Specifically, this Corrective Action Plan must address the following critical aspects of the Pollution Prevention Plan, which are defined by the City's State-approved Combined Sewer System Operational Plan and the May 1995 USEPA publication "Combined Sewer Overflows – Guidance For Nine Minimum Controls:

- street cleaning
- leaf pick-up program
- solid waste collection
- hazardous waste day
- flushing
- · catch basin cleaning
- manhole rehab
- sewer main rehab
- odor control

Congress enacted the Pollution Prevention Act of 1990 to establish a national strategy for preventing pollution from several sources, one of which was combined sewer systems. Section 6602(b) of the Pollution Prevention Act stated the following hierarchy for pollution prevention efforts:

- pollution should be prevented or minimized at the source, whenever feasible
- pollution that cannot be prevented should be recycled or reused, in an environmentally-safe manner, whenever feasible
- pollution that cannot be prevented or recycled / reused, should be properly treated prior to disposal, in an environmentally-safe manner
- disposal or release of pollution into the environment should only be employed as a last resort, and then conducted in an environmentally-safe manner.

The overall objective of the pollution prevention minimum control is to reduce, to the greatest extent practicable, the amount of contaminants that can enter the combined sewer system. Most of the suggested measures involve some form of public behavioral change, rather than construction of facilities.

Street Cleaning

Scope: Regular street sweeping helps keep debris (liter) from entering the sewer

collection system. Street litter can be removed by mechanical cleaning,

manual cleaning, or by manual water flushing.

Frequency: All city streets cleaned once a month. During leaf removal periods, sweeping

is more frequent. Downtown areas are swept on a weekly basis between 5

a.m. and 7 a.m.

Recording: The Street Department will provide the Public Services Department with a

record of street sweeping activity each month, for future review by EPA.

Leaf Pick-Up Program

<u>Scope</u>: Leaf pick-up is utilized to keep leaves out of the sewer drains.

<u>Frequency</u>: Program runs from mid-October thru mid-December

Recording: A schedule of leaf pick-up dates and times will be kept on file for each year,

for future review by EPA.

Solid Waste Collection and Recycling

Scope: Residential refuse and recycling pick-up is done by Mid-West Sanitation

through contract with the City. Trash receptacles are placed along the downtown and high school area for litter control. The City also has a

designated bulk refuse disposal facility.

Frequency: The contract with Mid-West Sanitation is renewed as needed. Trash

receptacles in the downtown and high school areas are emptied once a week.

The City's designated bulk refuse facility is open Friday, Saturday and

Monday from 8 a.m. to 4 p.m. and Sunday from noon to 4 p.m.

Recording: A copy of the contract with Mid-West Sanitation and a copy of the City's

designated bulk refuse facility hours will be kept on file, for future review by

EPA.

Hazardous Waste Collection Day

Scope: Hazardous waste collection days help educate the public about the

environmental and health & safety risks from hazardous waste being poured down sewer drains or on the ground, and provide the citizens of Wood River opportunity to properly dispose of their household hazardous wastes at no

cost.

Frequency: Three city-wide hazardous waste collections have occurred to date; 1993,

1996, 2000. No additional collections are scheduled at this time, however

the City is working toward developing a regular collection schedule.

Recording: A copy of the dates in which hazardous wastes were collected as well as any

public information material related to hazardous waste collection will be kept

on file for future review by EPA.

Sewer Flushing

Scope: Regular sewer flushing minimizes odors, reduces stoppages, and lessens

the likelihood of lift station failures.

Frequency: All dead-ends are flushed every 30 days and all problem areas are flushed

every 60 days, or more frequently if problems occur.

Recording: The Sewer Division of the Public Services Department will maintain records

of sewer flushing. A copy of these records will be filed monthly with the Public Services Department, and kept available for future review by EPA.

Catch Basin Cleaning

Scope: Regular cleaning out of debris and periodic inspection of catch basins for

inflow and infiltration, and needed repairs.

<u>Frequency</u>: Catch basin inspection and cleaning occurs on an annual basis.

Recording: Yearly inspection result forms will be filed at the Public Services Department,

for future review by EPA.

Manhole Rehabilitation

Scope: Each manhole in the City's sewer system is numbered which facilitates

regularly-scheduled inspections for possible defects. Manholes found to be in need of repair are rehabilitated, to ensure elimination of inflow and infiltration which could carry additional contaminants into the sewer system. Repairs may consist of grout, gasket replacement, water-tight lids, and

coating entire surface of the manhole and/or replacement.

<u>Frequency</u>: Every manhole is inspected on a yearly basis, and needed repairs occur on

an ongoing basis.

Recording: The Sewer Division of the Public Services Department will maintain monthly

records of manhole inspection and rehabilitation work performed. A copy of these records will be filed quarterly at the Public Services Department, for

future review by EPA.

Sewer Main Rehabilitation

Scope: Problem areas are inspected and video taped if necessary. A priority list is

developed to replace deteriorated mains, as funding becomes available.

Frequency: Inspections occur as needed, and updating of the priority list is an ongoing

activity.

Recording: The Sewer Division of the Public Services Department will maintain monthly

records of sewer main inspection and rehabilitation work performed. A copy of these records will be filed quarterly at the Public Services Department, for

future review by EPA.

Odor Control

Scope: Routine sewer flushing and chemical additions to wastewater help keep

odors to a minimum.

Frequency: Flushing is regularly scheduled for sewer mains with low velocities and/or

during times of high temperature.

Recording: The Sewer Division of the Public Services Department will maintain monthly

records of flushing and chemical additions for odor control. A copy of these records will be filed quarterly at the Public Services Department, for future

review by EPA.

Public Education Programs

Scope:

The use of various public education programs for pollution prevention (such as anti-litter campaigns, stenciling of street stormwater drain inlets, information on proper disposal of sanitary and personal hygiene items, notices prohibiting illegal dumping of solid waste, and so on) is covered in the City's response to Item 6. of the Administrative Order dealing with public notification.

IV. CORRECTIVE ACTION PLAN IMPLEMENTATION CONSIDERATIONS

The City of Wood River is currently performing many pollution prevention practices that Federal CSO Policy recommends be implemented to eliminate or reduce the potential for contaminants to enter combined sewer system. City staff does understand, though, that there is room for improvement (particularly in the area of public education), and the City's response to Item 6. of the Administrative Order details the plans of the City of Wood River to improve their public notification / education practices.

City staff also understands that they must do a better job of documenting the pollution prevention practices that the City of Wood River has implemented and is performing. Consequently, City staff will immediately implement the increased nature and extent of their record-keeping related to the performance of pollution prevention practices which is defined by this Corrective Action Plan in Section III.

APPENDIX AA

Public Notification Plan for City of Wood River (A.O. Response to Item No. 6.)

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

AMENDED ITEM NO. 6.

Document(s) Submitted:

Amended Plan For Ongoing Compliance With CSO Policy

Public Notification Program Requirements

Date Document Submitted:

March 24, 2006

Document Certification:

On behalf of the City of Wood River, Illinois, I hereby certify that all written statements contained in this document, which is submitted to USEPA pursuant to the above-referenced Administrative Order, are true and accurate to the best of my knowledge and belief. I also hereby stipulate that should I find, at any time subsequent to the submittal of this document to USEPA, that any of the written statements contained in this document are false or incorrect, I shall so notify USEPA – Region V.

Certification By: Stephen J. Palen, P.E.

Signature:

Title: Director of Public Services

City of Wood River, Illinois

Date: 3/24/00

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

SUBMITTAL OF PUBLIC NOTIFICATION DOCUMENTATION AND PLAN FOR ONGOING COMPLIANCE

Prepared By
HORNER & SHIFRIN, INC.

DECEMBER 2005

AMENDED: MARCH 2006

SUBMITTAL OF PUBLIC NOTIFICATION DOCUMENTATION AND PLAN FOR ONGOING COMPLIANCE

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SUBMITTAL OF PUBLIC NOTIFICATION DOCUMENTATION AND PLAN FOR ONGOING COMPLIANCE

1. PURPOSE AND SCOPE OF SUBMITTAL AND PLAN FOR ONGOING COMPLIANCE

Α. Purpose

The primary purpose of this submittal of public notification documentation and a plan for ongoing compliance for the City of Wood River, Illinois is to fulfill a requirement stated under Item 6. of an Administrative Order issued by USEPA Region V pursuant to Sections 308 and 309(a) of the Clean Water Act (Docket No. V-W-05-AO-16) and received by the City of Wood River on October 6, 2005.

Specifically, Item 6. of the above-referenced Administrative Order requires that the City shall submit to USEPA required documentation regarding whether the City has been in compliance with the modified NPDES Permit's Special Condition 13, Items 6.h. and 12; and then develop and submit a plan for ongoing compliance with the requirements for public notification.

B. Scope

The above-described specific requirement essentially defines the scope of the necessary submittal, via references to both Special Condition 13, Paragraphs 6.h. and 12. of the City's modified NPDES Permit, and the City's State-approved revised Combined Sewer System Operational Plan.

Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002 contains three important elements of compliance for the City of Wood River's combined sewer system:

- Paragraph 6.h.: requires compliance with one of the "Nine Minimum Controls" contained in the National CSO Control Policy published in the Federal Register on April 19, 1994; which is that public notification to ensure that citizens receive adequate information regarding CSO occurrences and CSO impacts (Compliance with this item has been met through Paragraphs 7 and 12 of this Special Condition).
- Paragraph 7.:
- requires considerations for sensitive areas. However, IEPA review of Wood River's combined sewer system in 2002 found that none of the outfalls in this Special Condition discharge to sensitive areas.
- Paragraph 12.:
- requires that a public notification program in accordance with Section II.B.8 of the federal CSO Control Policy of 1994 shall be developed employing a process that actively informs the affected public. This program shall be presented to the general public at a public information meeting conducted by the City. The City shall submit documentation that the public information meeting was held, and submit a summary of all significant issues raised by the public and the City's response to each issue shall be identified and any modifications to the program as a result of the public information meeting.

II. CURRENT PUBLIC NOTIFICATION PRACTICES

As previously indicated, Item 6. of the Administrative Order required the City of Wood River to submit its current collection of records of public notification practices which would document the City's compliance with the requirements of the City's modified NPDES Permit's Special Conditions and the City's State-approved Combined Sewer System Operational Plan.

In response to this Item 6. of the Administrative Order, the City hereby acknowledges that no records relating to its public notification program have been kept nor was any public meeting held, as required by the City's modified NPDES Permit's Special Conditions. However, a document that shows public notification was being performed by the City is attached, as part of the compliance with Item 6. of the above-referenced Administrative Order.

The attached document shows that the following public notification practice was being performed by the City:

Public Services Website: The City's Public Services Department website contains

information on CSO events, including the date, estimated

flow, rainfall amount and duration.

III. PROPOSED PLAN FOR ONGOING COMPLIANCE

In order to properly promote compliance with the requirements of Item 6. of the Administrative Order, and Special Condition 13 of the City's NPDES Permit as modified July 25, 2002, the City of Wood River must develop, implement, and then follow a plan for implementing and documenting a Public Notification Program.

Specifically, the following items must be completed:

- development of a Public Notification Program
- presentation of this program to the general public at a public information meeting
- submit documentation and summary of public information meeting as well as finalized Public Notification Program to IEPA
- retain records pertaining to the public information meeting and Public Notification Program

In addition, as indicated in the City's response to Item 5.B) of the Administrative Order, the City of Wood River intends to improve its public education program as part of the City's Corrective Action Plan for bringing the City's pollution prevention practices into compliance with Federal CSO Policy and the requirements of the Administrative Order.

III. PROPOSED PLAN FOR ONGOING COMPLIANCE (continued)

In the interest of efficiency, the City of Wood River proposes to combine the implementation of various public education programs for pollution prevention with the additional measures related to public notification which the City proposes to implement in response to the Administrative Order. The City's proposed Public Notification Program measures are described in the text that follows, and public education activities (such as promoting anti-litter campaigns, stenciling of street stormwater drain inlets, disseminating information on proper disposal of sanitary and personal hygiene items, posting notices prohibiting illegal dumping of solid waste, and so on) will be incorporated (as appropriate) into certain elements of the Public Notification Program.

Development of a Public Notification Program

As stated in Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002, the Program shall include, at a minimum, public notification of CSO occurrences and CSO impacts, shall include mass media and/or internet notification, and provisions shall be made to include modifications to the Program when necessary including notification to any additional affected public. A Public Notification Program that follows the minimum guidelines outline above has been developed, and is attached.

Public Information Meeting

The Public Notification Program will be presented to the general public at a public information meeting conducted by City Staff on or about June 7, 2006 as part of the public meeting scheduled to discuss CSO water quality impacts on the Mississippi River in conjunction with the development of the City's Long Term CSO Control Plan, Documentation of this public meeting, summary of the meeting, public commentary and the City's associated responses with respect to the Public Notification Program, along with the final Public Notification Program will be submitted to IEPA and USEPA as part of the completed Long Term CSO Control Plan on or about October 6, 2006.

Records

A copy of the Public Notification Program, documentation of the public information meeting, and quarterly filings of all public notifications will be kept on record at the Public Services Department, for future review by EPA.



SITE MAP



Overview | Parks and Rec | Building and Zoning | City Manager | Clerk's Office Fire Department | Finance Department | Police Department | Public Services Department | Taxes

Public Services

Public Services

The Public Services Department, which is made up of 4 separate divisions, is responsible for numerous functions that can dramatically impact the health, safety and welfare of community residents and businesses.

The Street Division oversees the maintenance and improvements to more than 56.4 miles of roads and over 42.7 miles of alleys. This includes monitoring for potentially hazardous conditions that can occur when traffic signs and signals are missing or not operational. During the winter months, the division works numerous overtime shifts to ensure roads and alleys are properly cleared and maintained for the safety of those living



Steve Palen, Director of Public Services

and traveling in the community. Street crews begin with roads that are most frequently traveled before moving to secondary or subdivision roads.

Through the water and sewer treatment plants, the Water and Sewer Division employees oversee the daily operations of the facilities that provide safe and quality water to more than 4,500 customers. Together, both divisions maintain more than 73 miles of water lines and 56 miles of sewer lines.

To report concerns regarding water mains, sewer problems, street maintenance, traffic signs or other related activities, please do not hesitate to contact Public Services at (618) 251-3122.

Curbside Trash and Recycling Pickup



The City contracts with Midwest Sanitary Services to provide regular trash and recycling pick-up services for residents. Curbside pickup is available for regular trash on the first collection day of the week and recyclable materials on the second collection day. For example, residents with Monday and Thursday pick-up will have their regular trash collected on Monday and recyclable materials on Thursday. Regular and recyclable trash is collected only on its designated day. For those with alley pick-up, please continue to place the regular trash in

the alley. However, recyclable trash must be placed front curbside in the provided blue recycling bins.

Should a holiday occur on a regular pick-up day, service will be provided the following day for either trash or recyclable. For example, if a holiday falls on a Monday, that route will be picked up on Tuesday, and the Tuesday route picked up on Wednesday. If there is a Thursday holiday, that route will be picked up on Friday and Friday's route on Saturday. Holidays observed by the hauler are New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving, and Christmas Day.

For a missed pick-up, please contact Midwest Sanitary Services at (618) 254-0171. For additional information or report concerns, please contact the Public Services at (618) 251-3100. Free blue bin recycling containers are available through City Hall at 111 N. Wood River Ave. during normal business hours should you need to replace a broken or lost one.

Recycling Information:

- Aluminum and Steel rinse out tin food cans and aluminum cans and loosely place in blue recycling bin (do not bag).
- Glass clear, green, blue, and brown colored bottles and jars. Do not bag, loosely place in blue bin. Labels do not have to be removed. Food must be rinsed out. Lids should be removed and placed with regular trash. Window glass, drinking glasses, light bulbs, and ceramics are not allowed for recycling.
- Plastic All milk, juice, soft drink, water and laundry detergent bottles bearing the code 1 or 2, usually found in a triangle on the bottom of the container are accepted. Caps must be removed and placed with regular trash. (No plastic containers with petroleum products permitted.)
- Paper Newspapers, magazines, junk mail, cardboard, clean food boxes, gift boxes, phone books, catalogs, brown paper bags, etc. (No cardboard milk or juice cartons or containers contaminated by food waste or any paper product with a wax coating. Plastic liners in food boxes should be removed and placed with regular trash.)
- Newspapers must be packed in paper grocery bags and set next to or on top of the blue recycling bin. Mixed paper (magazine, junk mail and office paper) must be packaged separately in paper grocery bags and placed inside the blue recycling bin. Cardboard boxes must be flattened and no larger than 2' x 2' and tied with string.
- Items not accepted disposable diapers, plastic foam products (egg cartons), plastic grocery bags, aluminum foil, plastic toys, paper towels, napkins, toilet paper and any plastics marked with the code usually found in a triangle on the bottom of the container that is other than 1 and 2.

Bulk Item Pick-Up

For those bulk or oversized item, the City can provide a few options for proper disposal.

- Spring & Fall Clean-Up: This popular service provides residents the opportunity
 to dispose of large items curbside free of charge. Generally clean-up times are
 during the month June and again in October. Schedules of clean-up are
 published in the Pipeline Community Newsletter and are available through City
 Hall. Should you have question regarding what is acceptable, please call Public
 Services (618) 251-3122 or the Finance Department at (618) 251-3131.
- Dumping Facility: A large dumpster is available for a small fee to residents for furniture or other large items year round at the City Garage located at the corner of 14th Street and Madison Ave. (Route 143). During the following hours: Monday, Friday and Saturday 8:00am to 4:00pm; and Sunday from noon to 4:00pm for the following fee as effective March 18, 1996:

for a single item

loaded to the top of the pickup truck bed
loaded to the top of the pickup cab
loaded over the top of the pickup cab
For additional questions, please contact Public
Services at (618) 251-3122.

Curbside Pick-Up: The City can arrange for a Wednesday pick-up of large or bulk items for a fee of \$35 for each 3 cubic yards of volume. The refuse hauler will pick-up curbside of your residency. For additional information or schedule a pick-up, please contact the Finance Department at (618) 251-3131.

Landscape and Yard Waste

Because of changes mandated by the State of Illinois, no landscape materials, such as grass, leaves, brush trimmings, or branches, can be collected for or enter any landfill. As a result the City's refuse hauler is unable to collect landscape or yard waste with regular trash pick-up. However, residents do have a few options about how to legally dispose of landscape and yard waste.

Residents can:

- Compost in the backyard Pamphlets are available at City Hall or on request with instructions on creating a backyard composting facility.
- Contract for Landscape Curbside Collections Although the City is not in the landscape collection business, Sanders Disposal Hauling is available for those residents who wish to make special accommodations for curbside collection. For more information, please contact Sanders Disposal Hauling at (618) 465-8461.
- 3. Take Grass and Leaves to the City Garage A drop-off facility is available at the City Garage, located at the corner of 14th Street and Madison Ave. (Route 143), where grass and leaves (yard waste) are accepted free of charge beginning May 1, 2001. Anything in plastic bags will have to be opened and dumped into the containers. Paper bags will be accepted. There is a \$5.00 charge for brush disposal.
- 4. Leaf Burning Outdoor burning of leaves, plants, shrubs and small limbs is allowed on private property, on Wednesday and Saturday only during the time period of October 1st through April 30th of each year. Burning must take place during daylight hours, only during a calm weather period with winds of less than 10 miles per hour. All burning must be supervised and a water hose must be available to extinguish a fire, if necessary. No leaf burning shall be allowed on any public street or alley.
- 5. Leaf Pick-Up: Generally beginning in October until December, the City will provide residents the opportunity for a free leaf pick-up for those leaves that are raked to the curb. Please do not rake leaves into the gutter. During rains, leaves may wash into the storm drainage system and cause unnecessary back ups. A leaf pick-up schedule is published in the fall edition of the Pipeline Community Newsletter. For additional information, please call City Hall at (618) 251-3100.
- Brush Hauling: Residents can schedule for tree limbs to be picked-up curbside for a fee of \$25 per truckload by contacting the Finance Department at (618) 251-3131. Pre-payment and scheduling arrangements must be done in advance.

For additional questions, please contact either City Hall at (618) 251-3100 or Public Services at (618) 251-3122.

CSO Updates

Date

Estimated Flow

Rainfall

Duration

COMBINED SEWER SYSTEM OPERATON PUBLIC NOTIFICATION PROGRAM

FOR

THE CITY OF WOOD RIVER, ILLINOIS NPDES PERMIT # IL0031852



DECEMBER 2005

PUBLIC NOTIFICATION PROGRAM CITY OF WOOD RIVER, ILLINOIS

This program was developed in fulfillment of the requirements of the City's National Pollutant Discharge Elimination System (NPDES) Combined Sewer Overflow (CSO) General Permit No. IL0031852. The objective of this plan is to address how the City will inform the public in the event of combined sewer overflows.

1. Postings of CSO Events on the Public Services Department Website

A list of all CSO events, including the date of the event, estimated amount of flow released during the event, the amount of rainfall that accumulated, and the duration of the event will be posted on the Public Services Department website within 24 hours of a CSO event.

2. Postings of CSO Events in the Local Newspaper

A brief description of each CSO event, similar to that which is posted on the website, will be published in the local newspaper in as timely of a manner as possible.

3. Modifications

Modifications to this program including additional means of informing the public may be used if deemed necessary in the event of an abnormal CSO event.

4. Posting at the CSO Outfall

A posting will be maintained at the CSO outfall to make the public aware of the potential of untreated sewage in the immediate area.

5. A Telephone Hotline for Interested Citizen Calls

A telephone hot-line will be created to answer citizen questions concerning CSO events. This hotline will be advertised in the local newspaper.

6. Public Education

The City of Wood River produces a quarterly newsletter that is circulated to all city residents, and contains information on proper disposal of yard wastes, bulk solid waste pickups, reminders to minimize littering and illegal dumping, proper disposal of personal hygiene products, and proper application of fertilizers, pesticides, and herbicides.

The recent re-establishment of the "Clean Sweep" program developed in 1988, and supervised by both the Parks & Recreation and Public Services Departments includes various projects including picking up trash and stenciling of street stormwater drain inlets. This program is maintained by the city and citizen volunteers.

APPENDIX BB

Plan For Optimizing Combined Sewer System
Storage to Minimize Frequency, Duration &
Volume of CSO Discharges
for City of Wood River
(A.O. Response to Item No. 4.)

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

ITEM NO. 4.)

Document(s) Submitted:

Plan For Optimizing Sewer System Storage to

Minimize Frequency, Duration, and Volume of CSO Discharges

Date Document Submitted:

January 3, 2006

Document Certification:

On behalf of the City of Wood River, Illinois, I hereby certify that all written statements contained in this document, which is submitted to USEPA pursuant to the above-referenced Administrative Order, are true and accurate to the best of my knowledge and belief. I also hereby stipulate that should I find, at any time subsequent to the submitted of this document to USEPA, that any of the written statements contained in this document are false or incorrect, I shall so notify USEPA—Region V.

Certification By: Stephen J. Palen, P.E.

Signature:

Title: Director of Public Services

City of Wood River, Illinois

1/3/06

Date:

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CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

PLAN FOR OPTIMIZING THE CITY'S

COMBINED SEWER SYSTEM

FOR

STORAGE TO MINIMIZE THE
FREQUENCY, DURATION, AND VOLUME
OF C.S.O. DISCHARGES

Prepared By
HORNER & SHIFRIN, INC.

December 2005

PLAN FOR OPTIMIZING THE CITY'S COMBINED SEWER SYSTEM FOR STORAGE TO MINIMIZE THE FREQUENCY, DURATION, AND VOLUME OF C.S.O. DISCHARGES

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PLAN FOR OPTIMIZING THE CITY'S COMBINED SEWER SYSTEM FOR STORAGE TO MINIMIZE THE FREQUENCY, DURATION, AND VOLUME OF C.S.O. DISCHARGES

I. PURPOSE AND SCOPE OF OPTIMIZATION PLAN

A. Purpose

The primary purpose of this Plan for optimizing the City of Wood River's combined sewer system for storage to minimize the frequency, duration, and volume of CSO discharges is to fulfill a requirement stated under Item 4. of an Administrative Order issued by USEPA Region V pursuant to Sections 308 and 309(a) of the Clean Water Act (Docket No. V-W-05-AO-16) and received by the City of Wood River on October 6, 2005.

Specifically, Item 4. of the above-referenced Administrative Order requires that the City shall submit to USEPA a Plan which is designed to address Finding 17 of the Administrative Order which states that "The City does not ensure the maximal use of upstream sewer systems for storage to minimize the frequency, duration, and volume of CSO discharges; as required by the City's modified NPDES Permit's Special Condition 13, Paragraphs 6.b. and 8.f.. The City is not ensuring full utilization of the sewer system capacity for storage of sewage since the City cannot ensure that separated sanitary and storm sewers are not reconnected to the combined sewer system downstream (e.g., Madison Street).

B. Scope

The above-described specific requirement essentially defines the scope of the necessary Sewer System Storage Optimization Plan, via references to Special Condition 13, Paragraphs 6.b. and 8.f. of the City's modified NPDES Permit.

Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002, contains two important elements of compliance for the City of Wood River's combined sewer system:

Paragraph 6.b.: requires compliance with one of the "Nine Minimum Controls" contained in the National CSO Control Policy published in the Federal Register on April 19, 1994; which is that maximum use of the collection system for storage must be accomplished. Further, compliance with this Item shall be met through the requirements imposed by Paragraphs 4, 5, and 8 of Special

Paragraph 8.f.: requires compliance with the objectives of the City's IEPA-approved Combined Sewer System Operations & Maintenance Plan dated December 18, 1997 and modified in December 2003; including mechanisms and specific procedures, where applicable, to ensure that the collection system is operated to maximize storage capacity and delay storm entry into the system.

Condition 13.

I. PURPOSE AND SCOPE OF CORRECTIVE ACTION PLAN (continued)

B. Scope (continued)

The requirement for compliance with Paragraphs 4, 5, and 8. of Special Condition 13 of the City's modified NPDES Permit closely parallels the requirement that the City's Sewer Storage Capacity Optimization Plan address compliance with City's State-approved revised Combined Sewer System Operational Plan; in that Paragraph 4. mandates that the collection system shall be operated to optimize transport of wastewater flows and to minimize CSO discharges, Paragraph 5. dictates that the treatment system shall be operated to maximize treatment of wastewater flows, and Paragraph 8. stipulates that the City must meet the objective of their Combined Sewer Operational Plan to reduce the total loading of pollutants entering the receiving stream.

II. CURRENT USE OF SEWER SYSTEM STORAGE CAPACITY

As stated in the City's State-approved Combined Sewer System Operational Plan modified in March 2003, the City of Wood River has established the elevation of the concrete diversion dam contained within their 84-inch combined interceptor sewer at the highest possible elevation to which it can hydraulically be set and NOT cause basement flooding during storm events. It is also well-established that historically the City of Wood River experiences street and parking lot flooding in a number of areas throughout the City during such storm events.

On the basis of these considerations, the staff of the Public Services Department of the City of Wood River believes that the City is currently maximizing their use of the storage capacity of their combined sewer system. The only additional measure that the staff believes could improve the combined sewer system's storage capacity, and which the staff has recently begun implementing (as capital improvement funding is available) is the separation of stormwater flows from the combined sewer system, accomplished through the installation of new storm sewers.

As an example of this effort, a project has recently been completed along Madison Avenue (a major street in the City of Wood River) to collect the stormwater inflow into nearly 60 inlets (as part of a project referred to as the Old St. Louis Road project), and then redirect all of that flow that was formerly discharging into the large combined sewer along Madison Avenue into an adjacent stormwater conveyance channel.

As described in detail in the following Section of this Plan, it is the intent of the City of Wood River to continue their efforts to accomplish projects which separate stormwater flows from the combined sewer system, as capital improvement funding becomes available.

III. PROPOSED USE OF SEWER SYSTEM STORAGE CAPACITY

In order to properly promote compliance with the requirements of Item 4. of the Administrative Order, the City of Wood River must develop, implement, and then follow a more comprehensive Plan for optimizing the use of the storage capacity of the City's combined sewer system; in order to minimize the frequency, duration, and volume of CSO discharges.

Specifically, then, this comprehensive Sewer Storage Capacity Optimization Plan must address the following critical aspects of the operation and maintenance of the combined sewer system, which are defined by Paragraph 8. of Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002:

- · collection system inspection
- sewer, catch basin, and regulator cleaning and maintenance
- collection system replacement, where necessary
- · detection and elimination of illegal connections
- · detection and elimination of dry weather overflows
- collection system operation to maximize storage capacity
- collection / treatment system operation to maximize flow treatment

With the exception of the topic relating to collection system operation to maximize storage capacity, which is addressed by the text of this Plan that follows, all of the other topics listed above are addressed in the response to Item 3.B) of the Administrative Order; which presents a Corrective Action Plan for Improving the City's Combined Sewer System Operations and Maintenance Record-keeping.

Collection System Operation to Maximize Storage Capacity

Scope: The USEPA publication "Combined Sewer Overflows – Guidance For Nine Minimum Controls" issued in May 1995 presents the following seven relatively simple measures that can be implemented by agencies operating combined sewers to increase the storage capacity of their combined sewer system and thus decrease the magnitude, frequency, and duration of combined sewer overflows:

- Collection System Inspection to enable identification of serious deficiencies in the collection system sewers and/or structures that are restricting the use of the system's full available storage capacity (e.g., an accumulation of solid debris).
- 2. <u>Tide Gate Maintenance</u> to prevent leaking tide gates (i.e., backwater flow prevention devices such as flap gates, Tide Flex valves, etc.) from admitting significant volumes of water from bodies of water adjacent and/or connected to the sewer system back into the sewer system, during periods of wet weather and/or high river stage. This "re-admitted" flow occupies sewer system storage and/or conveyance capacity that would otherwise be available for temporary wastewater storage in the collection system.
- 3. Adjustment of Regulator Settings to modify the height, size of opening, or other characteristic of a regulator device installed in the sewer system (either manually or automatically) to increase the amount of wastewater stored in particular segments of the sewer system.
- 4. <u>Inflow Retardation</u> to modify catch basin inlets, install Hydrobrakes, use special grating products, or employ other commercially-available devices in order to restrict (retard) the rate at which surface runoff is permitted to enter the combined sewer system. The most aggressive and effective means of accomplishing inflow retardation is the complete separation of stormwater flow from the combined sewer by means of construction of a new sewer that redirects stormwater away from the combined sewer and into a separate storm sewer system.
- 5. <u>Localized Upstream Detention</u> to install effective short-term storage facilities in appropriate areas upstream of hydraulically-deficient portions of the combined sewer system (e.g., low-lying parking lots, earthenbermed detention basins, or underground side-stream storage pipes) to temporarily store peak flows of storm water during intense storm events.

Collection System Operation to Maximize Storage Capacity (continued)

- 6. Modification of Lift Station Operations to either increase pumping rates so as to remove wastewater from the combined sewer system faster and thus make more of the sewers' capacity available, or to modify the pump on/off wet well elevations so as to allow more wastewater to be surcharged in the sewer system. Such modifications must be carefully coordinated with the capacity of the downstream portions of the sewer system into which the pumps discharge, and with the hydraulic capacity of the treatment works.
- 7. Removal of Permanent Obstructions to Flow to reduce or eliminate hydraulic restrictions in the existing sewers or structures that are found to be causing unanticipated high hydraulic headloss, which results in increases in the system hydraulic gradeline, thus occupying sewer system storage and/or conveyance capacity that would otherwise be available for temporary wastewater storage in the collection system.

The ability of the City of Wood River to employ the above-described measures to optimize the utilization of their sewer system's storage capacity (over and above what the City Public Services Department staff are already doing, in this regard) is significantly limited (as the USEPA Guidance document clearly acknowledges) by the attendant risk of exacerbating the potential for flooding streets, parking lots, and basements which are connected to the City's combined sewer system.

The risk of increased levels of sediments and other solid debris accumulating in the combined sewer system must also be taken into account. When wastewater flows are stored for longer periods in the sewers, more time allows more solids to settle out in the sewer pipes. This often means that more frequent cleaning of sewer lines becomes necessary, otherwise the reduction in sewer storage capacity resulting from accumulated debris could offset the increase gained by implementing one of the above-outlined measures.

The relatively flat natural topography of the City of Wood River also serves to significantly limit the volume of combined wastewater which can be stored in the City's sewer system.

Frequency:

Based on the above-described factors and other relevant considerations, the degree to which the City of Wood River can practically and cost-effectively employ the seven measures outlined above in order to optimize the City's use of the storage capacity of their combined sewer system and thus decrease the magnitude, frequency, and duration of combined sewer overflows is described on the following page.

Collection System Operation to Maximize Storage Capacity (continued)

1. Collection System Inspection

This topic is covered in the document which presents the City's response to Item 3.B) of the Administrative Order.

2. Tide Gate Maintenance

As stated in the City's Combined Sewer System Operational Plan, revised in March 2003, the City of Wood River has only a single outlet through which CSO's can occur (an 84-inch diameter pipe discharging to the Mississippi River). This outfall pipe is not equipped with a flap gate or other type of tide gate, because this pipe discharges to the River through a structure that is equipped with manually-operated gates which prevent backflow from the River during high river stage and allow the City's wastewater treatment plant effluent and any combined sewage which needs to be discharged to be pumped into the River. Consequently, this measure cannot, and does not need to, be employed by the City of Wood River for sewer system storage capacity optimization.

3. Adjustment of Regulator Settings

As stated in the City's State-approved Combined Sewer System Operational Plan modified in March 2003, the City of Wood River has established the elevation of the concrete diversion dam contained within their 84-inch combined interceptor sewer at the highest possible elevation to which it can hydraulically be set and NOT cause basement flooding during storm events. Furthermore, this concrete diversion dam is not adjustable. Consequently, this measure cannot be employed by the City of Wood River for sewer system storage capacity optimization.

4. Inflow Retardation

As previously indicated, the City of Wood River has recently begun implementing (as capital improvement funding is available) projects which have accomplished the separation of stormwater flows from the combined sewer system, by means of the installation of new storm sewers (e.g., the Madison Avenue inlet separations accomplished as part of the Old St. Louis Road project).

Other methods of inflow retardation are not believed to be cost effective to implement in the City of Wood River, at this time.

Collection System Operation to Maximize Storage Capacity (continued)

4. Inflow Retardation (continued)

The City of Wood River intends to continue their efforts to accomplish projects which separate stormwater flows from the combined sewer system, as capital improvement funding becomes available. Specifically, the following three projects are currently planned:

- Sixth and Grove Streets
- Linton Avenue
- Central Avenue and Hawthorne Street

5. Localized Upstream Detention

As previously indicated, it is well-established that historically the City of Wood River experiences street and parking lot flooding in a number of areas throughout the City during storm events. Much of this street flooding is associated with recent State highway improvement projects, which are beyond the control of the City. However, this flooding history creates a situation wherein the likelihood of succeeding in any attempt to create localized upstream detention without exacerbating the current significant flooding problems is exceedingly small.

The relatively flat natural topography of the City of Wood River also serves to significantly limit the volume of combined wastewater which can be stored in the City's sewer system.

Consequently, this measure cannot be recommended for use by the City of Wood River for sewer system storage capacity optimization.

6. Modification of Lift Station Operations

Given the fact, as stated in the City's Combined Sewer System Operational Plan, revised in March 2003, that CSO's <u>only</u> occur when the combined sewage flow in the 84-inch combined sewer exceeds the current 4.8 MGD capacity of the Wood River Sanitary (Terminal) Pump Station (WRSPS) and Wood River Wastewater Treatment Facility (WRWWTF), it would appear that modifications to the WRSPS could offer possible increases in the sewer system storage capacity.

Collection System Operation to Maximize Storage Capacity (continued)

6. Modification of Lift Station Operations (continued)

However, as also stated in the City's Combined Sewer System Operational Plan, revised in March 2003, the CSO's which exceed the current 4.8 MGD flow limit overflow the diversion dam and proceed to the Wood River Levee District Pump Station (WRLDPS), where the CSO flow is screened of floatables and other debris prior to being discharged either by gravity or pumping (depending on River stage) to the Mississippi River.

Since any increases in pumping capacity of the WRSPS would also require a corresponding increase in capacity of <u>both</u> the WRWWTF <u>and</u> the WRLDPS, this measure for optimizing the storage capacity of the sewer system does not represent a cost-effective method for the City of Wood River.

7. Removal of Permanent Obstructions to Flow

Based on the results of recent inspections of the major elements of the City's combined sewer system, the staff of the Wood River Public Services Department does not believe that there are any significant permanent obstructions to flow currently existing in the City's combined sewer system. Consequently, this measure cannot be employed by the City of Wood River for sewer system storage capacity optimization.

IV. OPTIMIZATION PLAN IMPLEMENTATION CONSIDERATIONS

The City of Wood River is currently performing several of the measures to maximize the storage capacity of their combined sewer system that Federal CSO Policy recommends be implemented to eliminate or reduce the potential for overflows to occur from the combined sewer system. City staff does understand, though, that there is room for improvement (particularly in the area of collection system inspection), and the City's response to Item 3.B) of the Administrative Order details the plans of the City of Wood River to improve their collection system inspection practices.

City staff also understands that they must do a better job of documenting the collection system inspection practices that the City of Wood River is performing. Consequently, City staff will immediately implement the increased nature and extent of their record-keeping related to the performance of collection system inspection, which is defined by the Corrective Action Plan presented in the City's response to Item 3.B) of the Administrative Order.

APPENDIX CC

City of Wood River Financial Capability Assessment Data

WOOD RIVER, ILLINIOS CSO LONG TERM CONTROL PLAN

Appendix HH Financial Capability Assessment

Phase I -- Residential Indicator Determination

COST PER HOUSEHOLD (CPH)

Cost Per Household	\$869.50	2,010		
	S. Roxana Hartford Total	708 861 6,318	(2000 Census)	
Total Number of Housholds in Service Area	Wood River	4,749	(0000 0	
Residential Share of Total Wastewater Treatment and CSO Control Costs	90%		ų	
Total Current and Projected Wastewater Treatment and CSO Control Costs	\$6,106,899	A State Commence of the Commen	+ 1/2/2	
Projected Wastewater Treatment and CSO Costs Estimated Annual Operations and Maintenance Expenses (Excluding Depreciation) Annual Debt Services (Principal and Interest) Subtotal	\$100,000 \$4,360,000 \$4,460,000	•	@ 5% for 20 years)	en.
Current Wastewater Treatment and CSO Costs Annual Operations and Maintenance Expenses (Excluding Depreciation) Annual Debt Service (Principal and Interest) Subtotal	\$1,646,899 \$0 \$1,646,899	(Wood River	nancial Report) Director of Finance y Schneider)	

MEDIAN HOUSEHOLD INCOME (MHI)

Median Household Income (MHI)			
Wood River			
Census Year MHI		\$33,875	(2000 Census)
MHI Adjustment Factor		(1+0.0402)^6	
Adjusted MHI		\$42,912	
South Roxana			
Census Year MHI		\$33,275	(2000 Census)
MHI Adjustment Factor		(1+0.0402)^6	
Adjusted MHI		\$42,152	
Hartford			
Census Year MHI		\$33,828	(2000 Census)
MHI Adjustment Factor		(1+0.0402)^6	,
Adjusted MHI		\$42,853	
	Weighted MHI	\$42,819	

RESULTING RESIDENTIAL INDICATOR & RANKING

CPH as a Percentage of MHI

2.03% would be ranked as "High"

WOOD RIVER, ILLINIOS CSO LONG TERM CONTROL PLAN

Appendix HH Financial Capability Assessment

Phase II -- Permittee Financial Capability Indicators Determination

	BOND RA	TING	• • • • • • • • • • • • • • • • • • •
Most Recent Genera Date Rating Agency Rating	I Obligation Bond Rating July 21, 2003 Standard and Poor's AAA	(Wood River Director of Finance Nancy Schnieder)
Most Recent Revenue Date Rating Agency Bond Insurance Rating	ne (Water/Sewer) Bond Rating None in the past 25 years		(Wood River Director of Finance Nancy Schnieder)
Summary of Bond Rating		Rating Strong	Capability Points .
OVERAL	L NET DEBT AS A PERCENTAGE	OF FULL MARKET	PROPERTY VALUE
Direct Net Debt (G.C Barreled Bonds)), Bonds Excluding Double-	\$3,675,000	(2005 Financial Report)
Debt of Overlapping Multijurisdictional De	Entities (Proportionate Share of bbt)	. 0	(2005 Financial Report)
Overall Net Debt		\$3,675,000	
Full Market Value of	Property	\$252,949,761	(2005 Financial Report)*
Overall Net Debt as	a % of Full Market Property Value	1.45	
Benchmark		<u>Rating</u> Strong	Capability Points 3
* (Assessed Valuation	on reported as \$83,473,421, or 33%	of Full Market Value	e)
	UNEMPLOYM	ENT RATE	
Unemployment Rate	(in General Area)	5.50%	(June 2006 IL Dept. of Employment Security)
Average National Ur	nemployment Rate	4.60%	(June 2006 U.S. Bureau of Labor Statistics)
Benchmark		Rating	Capability Points

2

Mid-Range

WOOD RIVER, ILLINIOS CSO LONG TERM CONTROL PLAN

Appendix HH Financial Capability Assessment

Phase II -- Permittee Financial Capability Indicators Determination

MEDIA	N HC	USEHOLI	O INCOME
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MEDIAN HOUSEHOL	TO MACCIME	
Median Household Income	\$42,819	(See Phase I Table)
Census Year National MHI	\$41,994	(2000 Census)
MHI Adjustment Factor	(1+0.0402)^6	
Adjusted National MHI	\$53,195	
% Difference MHI Permittee and MHI National Avg.	-19.5%	
Benchmark	<u>Rating</u> Mid-Range	Capability Points 2
PROPERTY TAX REVENUES AS A PERCENT O		
Full Market Value of Property	\$250,670,934	(2005 Financial Report)*
Property Tax Revenues	\$1,448,553	(2005 Financial Report)
Property Tax Revenue as a % of Full Market Property Valu	0.58%	
Benchmark	Rating Strong	Capability Points 3
* (Assessed Valuation reported as \$83,473,421, or 33% of		
PROPERTY TAX REVENUE		
Property Tax Revenue Collected	\$1,448,553	(2005 Financial Report)*
Property Taxes Levied	\$1,448,762	(2005 Financial Report)*
Property Tax Revenue Collection Rate	99%	
Benchmark	Rating Strong	Capability Points 3
* (Values used are for the year 2003. These are the most appear to be steady within 2% over the last 8 years)	recent values ava	ilable. Tax collection rates
RESULTING PERMITTEE FINANCIAL CA	PABILITY INDICA	ATORS RATING

APPENDIX DD

Federal CSO Control Policy



Tuesday April 19, 1994

Part VII

Environmental Protection Agency

Combined Sewer Overflow (CSO) Control Policy; Notice

ENVIRONMENTAL PROTECTION (GENCY

[FRL-4732-7]

Combined Sewer Overflow (CSO) Control Policy

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final policy.

SUMMARY: EPA has issued a national policy statement entitled "Combined Sewer Overflow (CSO) Control Policy." This policy establishes a consistent national approach for controlling discharges from CSOs to the Nation's waters through the National Pollutant Discharge Elimination System (NPDES) permit program.

FOR FURTHER INFORMATION CONTACT: Jeffrey Lape, Office of Wastewater Enforcement and Compliance, MC-4201, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202) 260-7361.

SUPPLEMENTARY INFORMATION: The main purposes of the CSO Control Policy are to elaborate on the Environmental Protection Agency's (EPA's) National CSO Control Strategy published on September 8, 1989, at 54 FR 37370, and to expedite compliance with the equirements of the Clean Water Act CWA). While implementation of the 1989 Strategy has resulted in progress toward controlling CSOs, significant public health and water quality risks remain.

This Policy provides guidance to permittees with CSOs, NPDES authorities and State water quality standards authorities on coordinating the planning, selection, and implementation of CSO controls that meet the requirements of the CWA and allow for public involvement during the decision-making process.

Contained in the Policy are provisions for developing appropriate, site-specific NPDES permit requirements for all combined sewer systems (CSS) that overflow as a result of wet weather events. For example, the Policy lays out two alternative approaches—the "demonstration" and the "presumption" approaches—that provide communities with targets for CSO controls that achieve compliance with the Act, particularly protection of water quality and designated uses. The Folicy also includes enforcement initiatives to require the immediate elimination of overflows that occur during dry weather and to ensure that he remaining CWA requirements are complied with as soon as practicable.

The permitting provisions of the Policy were developed as a result of

extensive input received from key stakeholders during a negotiated policy dialogue. The CSO stakeholders included representatives from States, environmental groups, municipal organizations and others. The negotiated dialogue was conducted during the Summer of 1992 by the Office of Water and the Office of Water's Management Advisory Group. The enforcement initiatives, including one which is underway to address CSOs during dry weather, were developed by EPA's Office of Water and Office of Enforcement.

EPA issued a Notice of Availability on the draft CSO Control Policy on January 19, 1993, (58 FR 4994) and requested comments on the draft Policy by March 22, 1993. Approximately forty-one sets of written comments were submitted by a variety of interest groups including cities and municipal groups, environmental groups, States, professional organizations and others. All comments were considered as EPA prepared the Final Policy. The public comments were largely supportive of the draft Policy. EPA received broad endorsement of and support for the key principles and provisions from most commenters. Thus, this final Policy does not include significant changes to the major provisions of the draft Policy, but rather, it includes clarification and better explanation of the elements of the Policy to address several of the questions that were raised in the comments. Persons wishing to obtain copies of the public comments or EPA's summary analysis of the comments may write or call the EPA contact person.

The CSO Policy represents a comprehensive national strategy to ensure that municipalities, permitting authorities, water quality standards authorities and the public engage in a comprehensive and coordinated planning effort to achieve cost effective CSO controls that ultimately meet appropriate health and environmental objectives. The Policy recognizes the site-specific nature of CSOs and their impacts and provides the necessary flexibility to tailor controls to local situations. Major elements of the Policy ensure that CSO controls are cost effective and meet the objectives and

requirements of the CWA.

The major provisions of the Policy are

as follows

CSO permittees should immediately undertake a process to accurately characterize their CSS and CSO discharges, demonstrate implementation of minimum technology-based controls identified in the Policy, and develop long-term CSO control plans which evaluate alternatives for attaining

compliance with the CWA, including compliance with water quality standards and protection of designated uses. Once the long-term CSO control plans are completed, permittees will be responsible to implement the plans' recommendations as soon as practicable.

State water quality standards authorities will be involved in the long-term CSO control planning effort as well. The water quality standards authorities will help ensure that development of the CSO permittees' long-term CSO control plans are coordinated with the review and possible revision of water quality standards on CSO-impacted waters.

NPDES authorities will issue/reissue or modify permits, as appropriate, to require compliance with the technologybased and water quality-based requirements of the CWA. After completion of the long-term CSO control plan, NPDES permits will be reissued or modified to incorporate the additional requirements specified in the Policy, such as performance standards for the selected controls based on average design conditions, a postconstruction water quality assessment program, monitoring for compliance with water quality standards, and a reopener clause authorizing the NPDES authority to reopen and modify the permit if it is determined that the CSO controls fail to meet water quality standards or protect designated uses. NPDES authorities should commence enforcement actions against permittees that have CWA violations due to CSO discharges during dry weather. In addition, NPDES authorities should ensure the implementation of the minimum technology-based controls and incorporate a schedule into an appropriate enforceable mechanism, with appropriate milestone dates, to implement the required long-term CSO control plan. Schedules for implementation of the long-term CSO control plan may be phased based on the relative importance of adverse impacts upon water quality standards and designated uses, and on a permittee's financial capability.

EPA is developing extensive guidance to support the Policy and will announce the availability of the guidances and other outreach efforts through various means, as they become available. For example, EPA is preparing guidance on the nine minimum controls, characterization and monitoring of CSOs, development of long-term CSO control plans, and financial capability.

Permittees will be expected to comply with any existing CSO-related requirements in NPDES permits.

onsent decrees or court orders unless evised to be consistent with this Policy. The policy is organized as follows:

I. Introduction

A. Purpose and Principles

B. Application of Policy

- C. Effect on Current CSO Control Efforts
- D. Smell System Considerations
- E. Implementation Responsibilities
- F. Policy Development
- II. EPA Objectives for Permittees

A. Overview

- B. Implementation of the Nine Minimum Controls
- C. Long-Term CSO Control Plan
- Characterization, Monitoring, and Modeling of the Combined Sewar Systems
- 2. Public Participation
- 3. Consideration of Sensitive Areas
- 4. Evaluation of Alternatives
- Cost/Performance Consideration
- 6. Operational Plan
- 7. Maximizing Treatment at the Existing POTW Treatment Plant
- Implementation Schedule
- 9. Post-Construction Compliance Monitoring Program
- III. Coordination With State Water Quality Standards
 - A. Overview
- B. Water Quality Standards Reviews IV. Expectations for Permitting Authorities
 - A. Overview
 - B. NPDES Permit Requirements

 1. Phase I Permits—Requirements for Demonstration of the Nine Minimum Controls and Development of the Long-Term CSO Control Plan
 - 2. Phase II Permits-Requirements for Implementation of a Long-Term CSO Control Plan
 - 3. Phasing Considerations
- V. Enforcement and Compliance
 - A. Overview
 - B. Enforcement of CSO Dry Weather Discharge Prohibition
 - C. Enforcement of Wet Weather CSO Requirements
 - 1. Enforcement for Compliance With Phase l Permits
 - 2. Enforcement for Compliance With Phase li Permits
 - D. Penalties

List of Subjects in 40 CFR Part 122

Water pollution control.

Authority: Clean Water Act, 33 U.S.C. 1251 et seq.

Dated: April 8, 1994.

Carol M. Browner.

Administrator

Combined Sewer Overflow (CSO) Control Policy

1. Introduction

A. Purpose and Principles

The main purposes of this Policy are to elaborate on EPA's National Combined Sewer Overflow (CSO) Control Strategy published on September 8, 1989 at 54 FR 37370 (1989)

Strategy) and to expedite compliance with the requirements of the Clean Water Act (CWA). While implementation of the 1989 Strategy has resulted in progress toward controlling CSOs, significant water quality risks remain.

A combined sewer system (CSS) is a wastewater collection system owned by a State or municipality (as defined by section 502(4) of the CWA) which conveys sanitary wastewaters (domestic, commercial and industrial wastewaters) and storm water through a single-pipe system to a Publicly Owned Treatment Works (POTW) Treatment Plant (as defined in 40 CFR 403.3(p)). A CSO is the discharge from a CSS at a point prior to the POTW Treatment Plant, CSOs are point sources subject to NPDES permit requirements including both technology-based and water quality based requirements of the CWA. CSOs are not subject to secondary treatment requirements applicable to POTWs.

CSOs consist of mixtures of domestic sawaga, industrial and commercial wastewaters, and storm water runoff. CSOs often contain high levels of suspended solids, pathogenic microorganisms, toxic pollutants, floatables, nutrients, oxygen-demanding organic compounds, oil and grease, and other pollutants. CSOs can cause exceedances of water quality standards (WQS). Such exceedances may pose risks to human health, threaten aquatic life and its habitat, and impair the use and enjoyment of the Nation's waterways.

This Policy is intended to provide guidance to permittees with CSOs, National Pollutant Discharge Elimination System (NPDES) permitting authorities, State water quality standards authorities and enforcement authorities. The purpose of the Policy is to coordinate the planning, selection, design and implementation of CSO management practices and controls to meet the requirements of the CWA and to involve the public fully during the decision making process.

This Policy reiterates the objectives of the 1989 Strategy:

- 1. To ensure that if CSOs occur, they are only as a result of wet weather;
- To bring all wet weather CSO discharge points into compliance with the technology-based and water quality-based requirements of the CWA; and
- 3. To minimize water quality, aquatic biota, and human health impacts from

This CSO Control Policy represents a comprehensive national strategy to ensure that municipalities, permitting

authorities, water quality standards authorities and the public engage in a comprehensive and coordinated planning effort to achieve cost-effective CSO controls that ultimately meet appropriate health and environmental objectives and requirements. The Policy recognizes the site-specific nature of CSOs and their impacts and provides the necessary flexibility to tailor controls to local situations. Four key principles of the Policy ensure that CSO controls are cost-effective and meet the objectives of the CWA. The key principles are:

1. Providing clear levels of control that would be presumed to meet appropriate health and environmental

objectives;

2. Providing sufficient flexibility to municipalities, especially financially disadvantaged communities, to consider the site-specific nature of CSOs and to determine the most costeffective means of reducing pollutants and meeting CWA objectives and requirements;

3. Allowing a phased approach to implementation of CSO controls considering a community's financial

capability; and

4. Review and revision, as appropriate, of water quality standards and their implementation procedures when developing CSO control plans to reflect the site-specific wet weather impacts of CSOs.

This Policy is being issued in support of EPA's regulations and policy initiatives. This Policy is Agency guidance only and does not establish or affect legal rights or obligations. It does not establish a binding norm and is not finally determinative of the issues addressed. Agency decisions in any particular case will be made by applying the law and regulations on the basis of specific facts when permits are issued. The Administration has recommended that the 1994 amendments to the CWA endorse this final Policy.

B. Application of Policy

The permitting provisions of this Policy apply to all CSSs that overflow as a result of storm water flow. including snow melt runoff (40 CFR 122.26(b)(13)). Discharges from CSSs during dry weather are prohibited by the CWA. Accordingly, the permitting provisions of this Policy do not apply to CSOs during dry weather. Dry weather flow is the flow in a combined sewer that results from domestic sewage. groundwater infiltration, commercial and industrial wastewaters, and any other non-precipitation related flows (e.g., tidal infiltration). In addition to

the permitting provisions, the inforcement and Compliance section of inis Policy describes an enforcement initiative being developed for overflows that occur during dry weather.

Consistent with the 1989 Strategy, 30 States that submitted CSO permitting strategies have received EPA approval or, in the case of one State, conditional approval of its strategy. States and EPA Regional Offices should review these strategies and negotiate appropriate revisions to them to implement this Policy. Permitting authorities are encouraged to evaluate water pollution control needs on a watershed management basis and coordinate CSO control efforts with other point and nonpoint source control activities.

C. Effect on Current CSO Control Efforts

EPA recognizes that extensive work has been done by many Regions, States, and municipalities to abate CSOs. As such, portions of this Policy may already have been addressed by permittees' previous efforts to control CSOs. Therefore, portions of this Policy may not apply, as determined by the permitting authority on a case-by-case basis, under the following circumstances:

1. Any permittee that, on the date of ublication of this final Policy, has ompleted or substantially completed construction of CSO control facilities that are designed to meet WQS and protect designated uses, and where it has been determined that WQS are being or will be attained, is not covered by the initial planning and construction provisions in this Policy; however, the operational plan and post-construction monitoring provisions continue to apply. If, after monitoring, it is determined that WQS are not being attained, the permittee should be required to submit a revised CSO control plan that, once implemented. will attain WQS.

Any permittee that, on the date of publication of this final Policy, has substantially developed or is implementing a CSO control program pursuant to an existing permit or enforcement order, and such program is considered by the NPDES permitting authority to be adequate to meet WQS and protect designated uses and is reasonably equivalent to the treatment objectives of this Policy, should complete those facilities without further planning activities otherwise expected by this Policy. Such programs, however, should be reviewed and modified to be onsistent with the sensitive area. financial capability, and postconstruction monitoring provisions of this Policy.

3. Any permittee that has previously constructed CSO control facilities in an effort to comply with WQS but has failed to meet such applicable standards or to protect designated uses due to remaining CSOs may receive consideration for such efforts in future permits or enforceable orders for long-term CSO control planning, design and implementation.

In the case of any ongoing or substantially completed CSO control effort, the NPDES permit or other enforceable mechanism, as appropriate, should be revised to include all appropriate permit requirements consistent with Section IV.B. of this Policy.

D. Small System Considerations

The scope of the long-term CSO control plan, including the characterization, monitoring and modeling, and evaluation of alternatives portions of this Policy may be difficult for some small CSSs. At the discretion of the NPDES Authority, jurisdictions with populations under 75,000 may not need to complete each of the formal steps outlined in Section II.C. of this Policy, but should be required through their permits or other enforceable mechanisms to comply with the nine minimum controls (II.B), public participation (II.C.2), and sensitive areas (II.C.3) portions of this Policy. In addition, the permittee may propose to implement any of the criteria contained in this Policy for evaluation of alternatives described in II.C.4. Following approval of the proposed plan, such jurisdictions should construct the control projects and propose a monitoring program sufficient to determine whether WQS are attained and designated uses are protected.

In developing long-term CSO control plans based on the small system considerations discussed in the preceding paragraph, permittees are encouraged to discuss the scope of their long-term CSO control plan with the WQS authority and the NPDES authority. These discussions will ensure that the plan includes sufficient information to enable the permitting authority to identify the appropriate CSO controls.

E. Implementation Responsibilities

NPDES authorities (authorized States or EFA Regional Offices, as appropriate) are responsible for implementing this Policy. It is their responsibility to assure that CSO permittees develop long-term CSO control plans and that NPDES permits meet the requirements of the CWA. Further, they are responsible for coordinating the review of the long-term

CSO control plan and the development of the permit with the WQS authority to determine if revisions to the WQS are appropriate. In addition, they should determine the appropriate vehicle (i.e., permit reissuance, information request under CWA section 308 or State equivalent or enforcement action) to ensure that compliance with the CWA is achieved as soon as practicable.

Permittees are responsible for documenting the implementation of the nine minimum controls and developing and implementing a long-term CSO control plan, as described in this Policy. EPA recognizes that financial considerations are a major factor affecting the implementation of CSO controls. For that reason, this Policy allows consideration of a permittee's financial capability in connection with the long-term CSO control planning effort, WQS review, and negotiation of enforceable schedules. However, each permittee is ultimately responsible for aggressively pursuing financial arrangements for the implementation of its long-term CSO control plan. As part of this effort, communities should apply to their State Revolving Fund program. or other assistance programs as appropriate, for financial assistance.

EPA and the States will undertake action to assure that all permittees with CSSs are subject to a consistent review in the permit development process, have permit requirements that achieve compliance with the CWA, and are subject to enforceable schedules that require the earliest practicable compliance date considering physical and financial feasibility.

F. Policy Development

This Policy devotes a separate section to each step involved in developing and implementing CSO controls. This is not to imply that each function occurs separately. Rather, the entire process surrounding CSO controls, community planning, WQS and permit development/revision, enforcement/ compliance actions and public participation must be coordinated to control CSOs effectively. Permittees and permitting authorities are encouraged to consider innovative and alternative approaches and technologies that achieve the objectives of this Policy and tha CWA.

In developing this Policy, EPA has included information on what responsible parties are expected to accomplish. Subsequent documents will provide additional guidance on how the objectives of this Policy should be met. These documents will provide further guidance on: CSO permit writing, the nine minimum controls, long-term CSO

control plans, financial capability, sewer system characterization and receiving water monitoring and modeling, and application of WQS to CSO-impacted waters. For most CSO control efforts however, sufficient detail has been included in this Policy to begin immediate implementation of its provisions.

II. EPA Objectives for Permittees

A. Overview

Permittees with CSSs that have CSOs should immediately undertake a process to accurately characterize their sewer systems, to demonstrate implementation of the nine minimum controls, and to develop a long-term CSO control plan.

B. Implementation of the Nine Minimum Controls

Permittees with CSOs should submit appropriate documentation demonstrating implementation of the nine minimum controls, including any proposed schedules for completing minimum construction activities. The nine minimum controls are:

- Proper operation and regular maintenance programs for the sewer system and the CSOs;
- Maximum use of the collection system for storage;
- Review and modification of pretreatment requirements to assure CSO impacts are minimized;
- Maximization of flow to the POTW for treatment;
- Prohibition of CSOs during dry weather;
- Control of solid and floatable materials in CSOs;
- 7. Pollution prevention;
- Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts; and
- Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

Selection and implementation of actual control measures should be based on site-specific considerations including the specific CSS's characteristics discussed under the sewer system characterization and monitoring portions of this Policy. Documentation of the nine minimum controls may include operation and maintenance plans, revised sewer use ordinances for industrial users, sewer system inspection reports, infiltration/inflow studies, pollution prevention programs, public notification plans, and facility plans for maximizing the capacities of the existing collection, storage and treatment systems, as well as contracts and schedules for minor construction

programs for improving the existing system's operation. The permittee should also submit any information or data on the degree to which the nine minimum controls achieve compliance with water quality standards. These data and information should include results made available through monitoring and modeling activities done in conjunction with the development of the long-term CSO control plan described in this Policy.

This documentation should be submitted as soon as practicable, but no later than two years after the requirement to submit such documentation is included in an NPDES permit or other enforceable mechanism. Implementation of the nine minimum controls with appropriate documentation should be completed as soon as practicable but no later than January 1, 1997. These dates should be included in an appropriate enforceable mechanism.

Because the CWA requires immediate compliance with technology-based controls (section 301(b)), which on a Best Professional Judgment basis should include the nine minimum controls, a compliance schedule for implementing the nine minimum controls, if necessary, should be included in an appropriate enforceable mechanism.

C. Long-Term CSO Control Plan

Permittees with CSOs are responsible for developing and implementing longterm CSO control plans that will ultimately result in compliance with the requirements of the CWA. The longterm plans should consider the sitespecific nature of CSOs and evaluate the cost effectiveness of a range of control options/strategies. The development of the long-term CSO control plan and its subsequent implementation should also be coordinated with the NPDES authority and the State authority responsible for reviewing and revising the State's WQS. The selected controls should be designed to allow cost effective expansion or cost effective retrofitting if additional controls are subsequently determined to be necessary to meet WQS, including existing and designated uses.

This policy identifies EPA's major objectives for the long-term CSO control plan. Permittees should develop and submit this long-term CSO control plan as soon as practicable, but generally within two years after the date of the NPDES permit provision, Section 308 information request, or enforcement action requiring the permittee to develop the plan. NPDES authorities may establish a longer timetable for completion of the long-term CSO

control plan on a case-by-case basis to account for site-specific factors which may influence the complexity of the planning process. Once agreed upon, these dates should be included in an appropriate enforceable mechanism.

EPA expects each long-term CSO control plan to utilize appropriate information to address the following minimum elements. The Plan should also include both fixed-date project implementation schedules (which may be phased) and a financing plan to design and construct the project as soon as practicable. The minimum elements of the long-term CSO control plan are described below.

Characterization, Monitoring, and Modeling of the Combined Sewer System

In order to design a CSO control plan adequate to meet the requirements of the CWA, a permittee should have a thorough understanding of its sewer system, the response of the system to various precipitation events, the characteristics of the overflows, and the water quality impacts that result from CSOs. The permittee should adequately characterize through monitoring, modeling, and other means as appropriate, for a range of storm events. the response of its sewer system to wet weather events including the number. location and frequency of CSOs. volume, concentration and mass of pollutants discharged and the impacts of the CSOs on the receiving waters and their designated uses. The permittee may need to consider information on the contribution and importance of other pollution sources in order to develop a final plan designed to meet water quality standards. The purpose of the system characterization, monitoring and modeling program initially is to assist the permittee in developing appropriate measures to implement the nine minimum controls and, if necessary, to support development of the long-term CSO control plan. The monitoring and modeling data also will be used to evaluate the expected effectiveness of both the nine minimum controls and, if necessary, the long-term CSO controls, to meet WQS.

The major elements of a sewer system characterization are described below.

a. Rainfall Records—The permittee should examine the complete rainfall record for the geographic area of its existing CSS using sound statistical procedures and best available data. The permittee should evaluate flow variations in the receiving water body to correlate between CSOs and receiving water conditions.

b. Combined Sewer System
Tharacterization—The permittee should avaluate the nature and extent of its sewer system through evaluation of available sewer system records, field inspections and other activities necessary to understand the number, location and frequency of overflows and their location relative to sensitive areas and to pollution sources in the collection system, such as indirect significant industrial users.

c. CSO Monitoring—The permittee should develop a comprehensive, representative monitoring program that measures the frequency, duration, flow rate, volume and pollutant concentration of CSO discharges and assesses the impact of the CSOs on the receiving waters. The monitoring program should include necessary CSO effluent and ambient in-stream monitoring and, where appropriate, other monitoring protocols such as biological assessment, toxicity testing and sediment sampling. Monitoring parameters should include, for example, oxygen demanding pollutants, nutrients, toxic pollutants, sediment contaminants, pathogens, bacteriological indicators (e.g., Enterococcus, E. Coli), and toxicity. A representative sample of overflow points can be selected that is sufficient to allow characterization of CSO discharges and their water quality impacts and to facilitate evaluation of control plan alternatives.

d. Modeling-Modeling of a sewer system is recognized as a valuable tool for predicting sewer system response to various wet weather events and assessing water quality impacts when evaluating different control strategies and alternatives. EPA supports the proper and effective use of models. where appropriate, in the evaluation of the nine minimum controls and the development of the long-term CSO control plan. It is also recognized that there are many models which may be used to do this. These models range from simple to complex. Having decided to use a model, the permittee should base its choice of a model on the characteristics of its sewer system, the number and location of overflow points, and the sensitivity of the receiving water body to the CSO discharges. Use of models should include appropriate calibration and verification with field measurements. The sophistication of the model should relate to the complexity of the system to be modeled and to the information needs associated with evaluation of CSO control options and water quality impacts. EPA believes that continuous simulation models, using historical rainfall data, may be the best

way to model sewer systems, CSOs, and their impacts. Because of the iterative nature of modeling sewer systems, CSOs, and their impacts, monitoring and modeling efforts are complementary and should be coordinated.

2. Public Participation

In developing its long-term CSO control plan, the permittee will employ a public participation process that actively involves the affected public in the decision-making to select the long-term CSO controls. The affected public includes rate payers, industrial users of the sewer system, persons who reside downstream from the CSOs, persons who use and enjoy these downstream waters, and any other interested persons.

3. Consideration of Sensitive Areas

EPA expects a permittee's long-term CSO control plan to give the highest priority to controlling overflows to sensitive areas. Sensitive areas, as determined by the NPDES authority in coordination with State and Federal agencies, as appropriate, include designated Outstanding National Resource Waters, National Marine Sanctuaries, waters with threatened or endangered species and their habitat, waters with primary contact recreation, public drinking water intakes or their designated protection areas, and shellfish beds. For such areas, the longterm CSO control plan should:

- a. Prohibit new or significantly increased overflows;
- b. i. Eliminate or relocate overflows that discharge to sensitive areas wherever physically possible and economically achievable, except where elimination or relocation would provide less environmental protection than additional treatment; or
- ii. Where elimination or relocation is not physically possible and economically achievable, or would provide less environmental protection than additional treatment, provide the level of treatment for remaining overflows deemed necessary to meet WQS for full protection of existing and designated uses. In any event, the level of control should not be less than those described in Evaluation of Alternatives below; and
- c. Where elimination or relocation has been proven not to be physically possible and economically achievable, permitting authorities should require, for each subsequent permit term, a reassessment based on new or improved techniques to eliminate or relocate, or on changed circumstances that influence economic achievability.

4. Evaluation of Alternatives

EPA expects the long-term CSO control plan to consider a reasonable range of alternatives. The plan should, for example, evaluate controls that would be necessary to achieve zero overflow events per year, an average of one to three, four to seven, and eight to twelve overflow events per year. Alternatively, the long-term plan could evaluate controls that achieve 100% capture, 90% capture, 85% capture. 80% capture, and 75% capture for treatment. The long-term control plan should also consider expansion of POTW secondary and primary capacity in the CSO abatement alternative analysis. The analysis of alternatives should be sufficient to make a reasonable assessment of cost and performance as described in Section II.C.5. Because the final long-term CSO control plan will become the basis for NPDES permit limits and requirements, the selected controls should be sufficient to meet CWA requirements.

In addition to considering sensitive areas, the long-term CSO control plan should adopt one of the following approaches:

a. "Presumption" Approach

A program that meets any of the criteria listed below would be presumed to provide an adequate level of control to meet the water quality-based requirements of the CWA, provided the permitting authority determines that such presumption is reasonable in light of the data and analysis conducted in the characterization, monitoring, and modeling of the system and the consideration of sensitive areas described above. These criteria are provided because data and modeling of wet weather events often do not give a clear picture of the level of CSO controls necessary to protect WQS.

i. No more than an average of four overflow events per year, provided that the permitting authority may allow up to two additional overflow events per year. For the purpose of this criterion, an overflow event is one or more overflows from a CSS as the result of a precipitation event that does not receive the minimum treatment specified below; or

ii. The elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a system-wide annual average basis; or

iii. The elimination or removal of no less than the mass of the pollutants, identified as causing water quality impairment through the sewer system haracterization, monitoring, and nodeling effort, for the volumes that would be eliminated or captured for treatment under paragraph ii. above. Combined sewer flows remaining after implementation of the nine minimum controls and within the criteria specified at Il.C.4.a.i or ii, should receive a minimum of:

 Primary clarification (Removal of floatables and settleable solids may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary

clarification.);

Solids and floatables disposal; and

 Disinfection of effluent, if necessary, to meet WQS, protect designated uses and protect human health, including removal of harmful disinfection chemical residuals, where necessary.

b. "Demonstration" Approach

A permittee may demonstrate that a selected control program, though not meeting the criteria specified in II.C. 4.a. above is adequate to meet the water quality-based requirements of the CWA. To be a successful demonstration, the permittee should demonstrate each of the following:

i. The planned control program is idequate to meet WQS and protect designated uses, unless WQS or uses cannot be met as a result of natural background conditions or pollution

sources other than CSOs;

ii. The CSO discharges remaining after implementation of the planned control program will not preclude the attainment of WQS or the receiving waters' designated uses or contribute to their impairment. Where WQS and designated uses are not met in part because of natural background conditions or pollution sources other than CSOs, a total maximum daily load, including a wasteload allocation and a load allocation, or other means should be used to apportion pollutant loads;

iii. The planned control program will provide the maximum pollution reduction benefits reasonably attainable;

and

iv. The planned control program is designed to allow cost effective expansion or cost effective retrofitting if additional controls are subsequently determined to be necessary to meet WQS or designated uses.

5. Cost/Performance Considerations

The permittee should develop appropriate cost/performance curves to demonstrate the relationships among a comprehensive set of reasonable control alternatives that correspond to the different ranges specified in Section

II.C.4. This should include an analysis to determine where the increment of pollution reduction achieved in the receiving water diminishes compared to the increased costs. This analysis, often known as knee of the curve, should be among the considerations used to help guide selection of controls.

6. Operational Plan

After agreement between the permittee and NPDES authority on the necessary CSO controls to be implemented under the long-term CSO control plan, the permittee should revise the operation and maintenance program developed as part of the nine minimum controls to include the agreed-upon long-term CSO controls. The revised operation and maintenance program should maximize the removal of pollutants during and after each precipitation event using all available facilities within the collection and treatment system. For any flows in excess of the criteria specified at II.C.4.a.i., ii. or iii and not receiving the treatment specified in II.C.4.a, the operational plan should ensure that such flows receive treatment to the greatest extent practicable.

7. Maximizing Treatment at the Existing POTW Treatment Plant

in some communities, POTW treatment plants may have primary treatment capacity in excess of their secondary treatment capacity. One effective strategy to abate pollution resulting from CSOs is to maximize the delivery of flows during wet weather to the POTW treatment plant for treatment. Delivering these flows can have two significant water quality benefits: First, increased flows during wet weather to the POTW treatment plant may enable the permittee to eliminate or minimize overflows to sensitive areas; second, this would maximize the use of available POTW facilities for wet weather flows and would ensure that combined sewer flows receive at least primary treatment prior to discharge.

Under EPA regulations, the intentional diversion of waste streams from any portion of a treatment facility, including secondary treatment, is a bypass. EPA bypass regulations at 40 CFR 122.41(m) allow for a facility to bypass some or all the flow from its treatment process under specified limited circumstances. Under the regulation, the permittee must show that the bypass was unavoidable to prevent loss of life, personal injury or severe property damage, that there was no feasible alternative to the bypass and that the permittee submitted the required notices. In addition, the

regulation provides that a bypass may be approved only after consideration of adverse effects.

Normally, it is the responsibility of the permittee to document, on a case-bybase basis, compliance with 40 CFR 122.41(m) in order to bypass flows legally. For some CSO-related permits, the study of leasible alternatives in the control plan may provide sufficient support for the permit record and for approval of a CSO-related bypass in the permit itself, and to define the specific parameters under which a bypass can legally occur. For approval of a CSOrelated bypass, the long-term CSO control plan, at a minimum, should provide justification for the cut-off point at which the flow will be diverted from the secondary treatment portion of the treatment plant, and provide a benefitcost analysis demonstrating that conveyance of wet weather flow to the POTW for primary treatment is more beneficial than other CSO abatement alternatives such as storage and pump back for secondary treatment, sewer separation, or satellite treatment. Such a permit must define under what specific wet weather conditions a CSO-related bypass is allowed and also specify what treatment or what monitoring, and effluent limitations and requirements apply to the bypass flow. The permit should also provide that approval for the CSO-related bypass will be reviewed and may be modified or terminated if there is a substantial increase in the volume or character of pollutants being introduced to the POTW. The CSOrelated bypass provision in the permit should also make it clear that all wet weather flows passing the headworks of the POTW treatment plant will receive at least primary clarification and solids and floatables removal and disposal, and disinfection, where necessary, and any other treatment that can reasonably be provided.

Under this approach, EPA would allow a permit to authorize a CSOrelated bypass of the secondary treatment portion of the POTW treatment plant for combined sewer flows in certain identified circumstances. This provision would apply only to those situations where the POTW would ordinarily meet the requirements of 40 CFR 122.41(m) as evaluated on a case-by-case basis. Therefore, there must be sufficient data in the administrative record (reflected in the permit fact sheet or statement of basis) supporting all the requirements in 40 CFR 122.41(m)(4) for approval of an anticipated bypass.

For the purposes of applying this regulation to CSO permittees, "severe property damage" could include

situations where flows above a certain level wash out the POTW's secondary treatment system. EPA further believes that the feasible alternatives requirement of the regulation can be met if the record shows that the secondary treatment system is properly operated and maintained, that the system has been designed to meet secondary limits for flows greater than the peak dry weather flow, plus an appropriate quantity of wet weather flow, and that it is either technically or financially infeasible to provide secondary treatment at the existing facilities for greater amounts of wet weather flow. The feasible alternative analysis should include, for example, consideration of enhanced primary treatment (e.g., chemical addition) and non-biological secondary treatment. Other bases supporting a finding of no feasible alternative may also be available on a case-by-case basis. As part of its consideration of possible adverse effects resulting from the bypass, the permitting authority should also ensure that the bypass will not cause exceedances of WQS.

This Policy does not address the appropriateness of approving anticipated bypasses through NPDES permits in advance outside the CSO

context.

8. Implementation Schedule

The permittee should include all pertinent information in the long term control plan necessary to develop the construction and financing schedule for implementation of CSO controls Schedules for implementation of the CSO controls may be phased based on the relative importance of adverse impacts upon WQS and designated uses, priority projects identified in the long-term plan, and on a permittee's financial capability.

Construction phasing should

consider:

a. Eliminating overflows that discharge to sensitive areas as the highest priority:

b. Use impairment:

- c. The permittee's financial capability including consideration of such factors
 - i. Median household income:
- ii. Total annual wastewater and CSO control costs per household as a percent of median household income;

iii. Overall net debt as a percent of full market property value;

- iv. Property tax revenues as a percent of full market property value;
 - v. Property tax collection rate:
 - vi. Unemployment, and vii. Bond rating;
 - d. Grant and loan availability;

- e. Previous and current residential. commercial and industrial sewer user fees and rate structures; and
- Other viable funding mechanisms and sources of financing.
- Post-Construction Compliance Monitoring Program

The selected CSO controls should include a post-construction water quality monitoring program adequate to verify compliance with water quality standards and protection of designated uses as well as to ascertain the effectiveness of CSO controls. This water quality compliance monitoring program should include a plan to be approved by the NPDES authority that details the monitoring protocols to be followed, including the necessary effluent and ambient monitoring and, where appropriate, other monitoring protocols such as biological assessments, whole effluent toxicity testing, and sediment sampling.

III. Coordination With State Water Quality Standards

A. Overview

WQS are State adopted, or Federally promulgated rules which serve as the goals for the water body and the legal basis for the water quality-based NPDES permit requirements under the CWA. WQS consist of uses which States designate for their water bodies, criteria to protect the uses, an anti-degradation policy to protect the water quality improvements gained and other policies affecting the implementation of the standards. A primary objective of the long-term CSO control plan is to meet WQS, including the designated uses through reducing risks to human health and the environment by eliminating, relocating or controlling CSOs to the affected waters.

State WQS authorities, NPDES authorities, EPA regional offices, permittees, and the public should meet early and frequently throughout the long-term CSO control planning process. Development of the long-term plan should be coordinated with the review and appropriate revision of WQS and implementation procedures on CSO-impacted waters to ensure that the long-term controls will be sufficient to meet water quality standards. As part of these meetings, participants should agree on the data, information and analyses needed to support the development of the long-term CSO control plan and the review of applicable WQS, and implementation procedures, if appropriate. Agreements should be reached on the monitoring protocols and models that will be used

to evaluate the water quality impacts of the overflows, to analyze the attainability of the WQS and to determine the water quality-based requirements for the permit. Many opportunities exist for permittees and States to share information as control programs are developed and as WQS are reviewed. Such information should assist States in determining the need for revisions to WQS and implementation procedures to better reflect the sitespecific wet weather impacts of CSOs. Coordinating the development of the long-term CSO control plan and the review of the WQS and implementation procedures provides greater assurance that the long-term control plan selected and the limits and requirements included in the NPDES permit will be sufficient to meet WQS and to comply with sections 301(b)(1)(C) and 402(a)(2) of the CWA.

EPA encourages States and permittees jointly to sponsor workshops for the affected public in the development of the long-term CSO control plan and during the development of appropriate revisions to WQS for CSO-impacted waters. Workshops provide a forum for including the public in discussions of the implications of the proposed longterm CSO control plan on the water quality and uses for the receiving water.

B. Water Quality Standards Reviews

The CWA requires States to periodically, but at least once every three years, hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. States must provide the public an opportunity to comment on any proposed revision to water quality standards and all revisions must be submitted to EPA for review and

approval. EPA regulations and guidance provide States with the flexibility to adapt their WQS, and implementation procedures to reflect site-specific conditions including those related to CSOs. For example, a State may adopt site-specific criteria for a particular pollutant if the State determines that the site-specific criteria fully protects the designated use (40 CFR 131.11). In addition, the regulations at 40 CFR 131.10(g), (h), and (j) specify when and how a designated use may be modified. A State may remove a designated use from its water quality standards only if the designated use is not an existing use. An existing use is a use actually attained in the water body on or after November 28. 1975. Furthermore, a State may not remove a designated use that will be attained by implementing the

technology-based effluent limits quired under sections 301(b) and 306 of the CWA and by implementing coeteffective and reasonable best management practices for nonpoint source controls. Thus, if a State has a reasonable basis to determine that the current designated use could be attained after implementation of the technology-based controls of the CWA, then the use could not be removed.

In determining whether a use is attainable and prior to removing a designated use, States must conduct and submit to EPA a use attainability analysis. A use attainability analysis is a structured scientific assessment of the factors affecting the use, including the physical, chemical, biological, and economic factors described in 40 CFR 131.10(g). As part of the analysis, States should evaluate whether the designated use could be attained if CSO controls were implemented. For example, States should examine if sediment loadings from CSOs could be reduced so as not to bury spawning beds, or if biochemical oxygen demanding material in the effluent or the toxicity of the effluent could be corrected so as to reduce the acute or chronic physiological stress on or bioaccumulation potential of aquatic

rganisms.
In reviewing the attainability of their WQS and the applicability of their implementation procedures to CSO-impacted waters, States are encouraged to define more explicitly their recreational and aquatic life uses and then, if appropriate, modify the criteria accordingly to protect the designated

Another option is for States to adopt partial uses by defining when primary contact recreation such as swimming does not exist, such as during certain seasons of the year in northern climates or during a particular type of storm event. In making such adjustments to their uses, States must ensure that downstream uses are protected, and that during other seasons or after the storm event has passed, the use is fully protected.

In addition to defining recreational uses with greater specificity, States are also encouraged to define the aquatic uses more precisely. Rather than "aquatic life use protection," States should consider defining the type of lishery to be protected such as a cold water fishery (e.g., trout or salmon) or a warm weather fishery (e.g., bluegill or large mouth bass). Explicitly defining he type of fishery to be protected may issist the permittee in enlisting the support of citizens for a CSO control plan.

A water quality standard variance may be appropriate, in limited circumstances on CSO-impacted waters, where the State is uncertain as to whether a standard can be attained and time is needed for the State to conduct additional analyses on the attainability of the standard. Variances are short-term modifications in water quality standards. Subject to EPA approval, States, with their own statutory authority, may grant a variance to a specific discharger for a specific pollutant. The justification for a variance is similar to that required for a permanent change in the standard, although the showings needed are less rigorous. Variances are also subject to public participation requirements of the water quality standards and permits programs and are reviewable generally every three years. A variance allows the CSO permit to be written to meet the "modified" water quality standard as analyses are conducted and as progress is made to improve water quality.

Justifications for variances are the same as those identified in 40 CFR 131.10(g) for modifications in uses. States must provide an opportunity for public review and comment on all variances. If States use the permit as the vehicle to grant the variance, notice of the permit must clearly state that the variance modifies the State's water quality standards. If the variance is approved, the State appends the variance to the State's standards and reviews the variance every three years.

IV. Expectations for Permitting Authorities

A. Overview

CSOs are point sources subject to NPDES permit requirements including both technology-based and water quality-based requirements of the CWA. CSOs are not subject to secondary treatment regulations applicable to publicly owned treatment works (Montgomery Environmental Coalition vs. Costle, 646 F.2d 568 (D.C. Cir. 1980)).

All permits for CSOs should require the nine minimum controls as a minimum best available technology economically achievable and best conventional technology (BAT/BCT) established on a best professional judgment (BPJ) basis by the permitting authority (40 CFR 125.3). Water quality-based requirements are to be established based on applicable water quality standards.

This policy establishes a uniform, nationally consistent approach to developing and issuing NPDES permits to permittees with CSOs. Permits for

CSOs should be developed and issued expeditiously. A single, system-wide permit generally should be issued for all discharges, including CSOs, from a CSS operated by a single authority. When different parts of a single CSS are operated by more than one authority, permits issued to each authority should generally require joint preparation and implementation of the elements of this Policy and should specifically define the responsibilities and duties of each authority. Permittees should be required to coordinate system-wide implementation of the nine minimum controls and the development and implementation of the long-term CSO control plan.

The individual authorities are responsible for their own discharges and should cooperate with the permittee for the POTW receiving the flows from the CSS. When a CSO is permitted separately from the POTW, both permits should be cross-referenced for informational purposes.

EPA Regions and States should review the CSO permitting priorities established in the State CSO Permitting Strategies developed in response to the 1989 Strategy. Regions and States may elect to revise these previous priorities. In setting permitting priorities, Regions and States should not just focus on those permittees that have initiated monitoring programs. When setting priorities, Regions and States should consider, for example, the known or potential impact of CSOs on sensitive areas, and the extent of upstream industrial user discharges to the CSS.

During the permittee's development of the long-term CSO control plan, the permit writer should promote coordination between the permittee and State WQS authority in connection with possible WQS revisions. Once the permittee has completed development of the long-term CSO control plan and has coordinated with the permitting authority the selection of the controls necessary to meet the requirements of the CWA, the permitting authority should include in an appropriate enforceable mechanism, requirements for implementation of the long-term CSO control plan, including conditions for water quality monitoring and operation and maintenance.

B. NPDES Permit Requirements

Following are the major elements of NPDES permits to implement this Policy and ensure protection of water quality.

 Phase I Permits—Requirements for Demonstration of Implementation of the Nine Minimum Controls and Development of the Long-Term CSO Control Plan

In the Phase I permit issued/modified to reflect this Policy, the NPDES authority should at least require permittees to:

a. Immediately implement BAT/BCT, which at a minimum includes the nine minimum controls, as determined on a BPJ basis by the permitting authority;

b. Develop and submit a report documenting the implementation of the nine minimum controls within two years of permit issuance/modification;

c. Comply with applicable WQS, no later than the date allowed under the State's WQS, expressed in the form of a

narrative limitation; and

d. develop and submit, consistent with this Policy and based on a schedule in an appropriate enforceable mechanism, a long-term CSO control plan as soon as practicable, but generally within two years after the effective date of the permit issuance/ modification. However, permitting authorities may establish a longer timetable for completion of the long-term CSO control plan on a case-by-case basis to account for site-specific factors that may influence the complexity of the planning process.

The NPDES authority should include compliance dates on the fastest practicable schedule for each of the nine minimum controls in an appropriate enforceable mechanism issued in conjunction with the Phase I permit. The use of enforceable orders is necessary unless Congress amends the CWA. All orders should require compliance with the nine minimum controls no later than January 1, 1997.

2. Phase II Permits—Requirements for Implementation of a Long-Term CSO Control Plan

Once the permittee has completed development of the long-term CSO control plan and the selection of the controls necessary to meet CWA requirements has been coordinated with the permitting and WQS authorities, the permitting authority should include, in an appropriate enforceable mechanism, requirements for implementation of the long-term CSO control plan as soon as practicable. Where the permittee has selected controls based on the "presumption" approach described in Section II.C.4, the permitting authority must have determined that the presumption that such level of treatment will achieve water quality standards is reasonable in light of the

data and analysis conducted under this Policy. The Phase II permit should contain:

 a. Requirements to implement the technology-based controls including the nine minimum controls determined on a BPJ basis;

 Narrative requirements which insure that the selected CSO controls are implemented, operated and maintained as described in the long-term CSO

control plan;

c. Water quality-based effluent limits under 40 CFR 122.44(d)(1) and 122.44(k), requiring, at a minimum, compliance with, no later than the date allowed under the State's WQS, the numeric performance standards for the selected CSO controls, based on average design conditions specifying at least one of the following:

i. A maximum number of overflow events per year for specified design conditions consistent with II.C.4.a.; or

ii. A minimum percentage capture of combined sewage by volume for treatment under specified design conditions consistent with II.C.4.a.ii; or

iii. A minimum removal of the mass of pollutants discharged for specified design conditions consistent with II.C.4.a.iii; or

iv. performance standards and requirements that are consistent with

II.C.4.b. of the Policy.

d. A requirement to implement, with an established schedule, the approved post-construction water quality assessment program including requirements to monitor and collect sufficient information to demonstrate compliance with WQS and protection of designated uses as well as to determine the effectiveness of CSO controls.

e. A requirement to reassess overflows to sensitive areas in those cases where elimination or relocation of the overflows is not physically possible and economically achievable. The reassessment should be based on consideration of new or improved techniques to eliminate or relocate overflows or changed circumstances that influence economic achievability.

f. Conditions establishing requirements for maximizing the treatment of wet weather flows at the POTW treatment plant, as appropriate, consistent with Section II.C.7. of this

Policy:

g. A reopener clause authorizing the NPDES authority to reopen and modify the permit upon determination that the CSO controls fail to meet WQS or protect designated uses. Upon such determination, the NPDES authority should promptly notify the permittee and proceed to modify or reissue the permit. The permittee should be

required to develop, submit and implement, as soon as practicable, a revised CSO control plan which contains additional controls to meet WQS and designated uses. If the initial CSO control plan was approved under the demonstration provision of Section II.C.4.b., the revised plan, at a minimum, should provide for controls that satisfy one of the criteria in Section II.C.4.a. unless the permittee demonstrates that the revised plan is clearly adequate to meet WQS at a lower cost and it is shown that the additional controls resulting from the criteria in Section II.C.4.a. will not result in a greater overall improvement in water quality.

Unless the permittee can comply with all of the requirements of the Phase II permit, the NPDES authority should include, in an enforceable mechanism, compliance dates on the fastest practicable schedule for those activities directly related to meeting the requirements of the CWA. For major permittees, the compliance schedule should be placed in a judicial order. Proper compliance with the schedule for implementing the controls recommended in the long-term CSO control plan constitutes compliance with the elements of this Policy concerning planning and implementation of a long term CSO remedy.

3. Phasing Considerations

Implementation of CSO controls may be phased based on the relative importance of and adverse impacts upon WQS and designated uses, as well as the permittee's financial capability and its previous efforts to control CSOs. The NPDES authority should evaluate the proposed implementation schedule and construction phasing discussed in Section II.C.8. of this Policy. The permit should require compliance with the controls proposed in the long-term CSO control plan no later than the applicable deadline(s) under the CWA or State law. If compliance with the Phase II permit is not possible, an enforceable schedule, consistent with the Enforcement and Compliance Section of this Policy, should be issued in conjunction with the Phase II permit which specifies the schedule and milestones for implementation of the long-term CSO control plan.

V. Enforcement and Compliance

A. Overview

It is important that permittees act immediately to take the necessary steps to comply with the CWA. The CSO enforcement effort will commence with an initiative to address CSOs that ischarge during dry weather, followed oy an enforcement effort in conjunction with permitting CSOs discussed earlier in this Policy. Success of the enforcement effort will depend in large part upon expeditious action by NPDES authorities in issuing enforceable permits that include requirements both for the nine minimum controls and for compliance with all other requirements of the CWA. Priority for enforcement actions should be set based on environmental impacts or sensitive areas affected by CSOs.

As a further inducement for permittees to cooperate with this process, EPA is prepared to exercise its enforcement discretion in determining whether or not to seek civil penalties for past CSO violations if permittees meet the objectives and schedules of this Policy and do not have CSOs during dry weather.

B. Enforcement of CSO Dry Weather Discharge Prohibition

EPA intends to commence immediately an enforcement initiative against CSO permittees which have CWA violations due to CSOs during dry weather. Discharges during dry weather have always been prohibited by the NPDES program. Such discharges can create serious public health and water quality problems. EPA will use its CWA Section 308 monitoring, reporting, and inspection authorities, together with NPDES State authorities, to locate these violations, and to determine their causes. Appropriate remedies and penalties will be sought for CSOs during dry weather. EPA will provide NPDES authorities more specific guidance on this enforcement initiative separately.

C. Enforcement of Wet Weather CSO Requirements

Under the CWA, EPA can use several enforcement options to address permittees with CSOs. Those options directly applicable to this Policy are section 308 Information Requests, section 309(a) Administrative Orders, section 309(g) Administrative Penalty Orders, section 309 (b) and (d) Civil Judicial Actions, and section 504 Emergency Powers. NPDES States should use comparable means.

NPDES authorities should set priorities for enforcement based on environmental impacts or sensitive areas affected by CSOs. Permittees that have voluntarily initiated monitoring and are progressing expeditiously toward appropriate CSO controls should be given due consideration for their efforts.

1. Enforcement for Compliance With Phase I Permits

Enforcement for compliance with Phase I permits will focus on requirements to implement at least the nine minimum controls, and develop the long-term CSO control plan leading to compliance with the requirements of the CWA. Where immediate compliance with the Phase I permit is infeasible, the NPDES authority should issue an enforceable schedule, in concert with the Phase I permit, requiring compliance with the CWA and imposing compliance schedules with dates for each of the nine minimum controls as soon as practicable. All enforcement authorities should require compliance with the nine minimum controls no later than January 1, 1997. Where the NPDES authority is issuing an order with a compliance schedule for the nine minimum controls, this order should also include a schedule for development of the long-term CSO control plan.

If a CSO permittee fails to meet the final compliance date of the schedule, the NPDES authority should initiate appropriate judicial action.

2. Enforcement for Compliance With Phase II Permits

The main focus for enforcing compliance with Phase II permits will be to incorporate the long-term CSO control plan through a civil judicial action, an administrative order, or other enforceable mechanism requiring compliance with the CWA and imposing a compliance schedule with appropriate milestone dates necessary to implement the plan.

In general, a judicial order is the appropriate mechanism for incorporating the above provisions for Phase II. Administrative orders, however, may be appropriate for permittees whose long-term control plans will take less than five years to complete, and for minors that have complied with the final date of the enforceable order for compliance with their Phase I permit. If necessary, any of the nine minimum controls that have not been implemented by this time

should be included in the terms of the

judicial order.

D. Penalties

D' Lemmines

EPA is prepared not to seek civil penalties for past CSO violations, if permittees have no discharges during dry weather and meet the objectives and schedules of this Policy.

Notwithstanding this, where a permittee has other significant CWA violations for which EPA or the State is taking judicial

action, penalties may be considered as part of that action for the following:

CSOs during dry weather;

2. Violations of CSO-related requirements in NPDES permits; consent decrees or court orders which predate this policy; or

Other CWA violations.

EPA will not seek penalties for past CSO violations from permittees that fully comply with the Phase I permit or enforceable order requiring compliance with the Phase I permit. For permittees that fail to comply, EPA will exercise its enforcement discretion in determining whether to seek penalties for the time period for which the compliance schedule was violated. If the milestone dates of the enforceable schedule are not achieved and penalties are sought, penalties should be calculated from the last milestone date that was met.

At the time of the judicial settlement imposing a compliance schedule implementing the Phase II permit requirements, EPA will not seek penalties for past CSO violations from permittees that fully comply with the enforceable order requiring compliance with the Phase I permit and if the terms of the judicial order are expeditiously agreed to on consent. However, stipulated penalties for violation of the judicial order generally should be included in the order, consistent with existing Agency policies. Additional guidance on stipulated penalties concerning long-term CSO controls and attainment of WQS will be issued.

Paperwork Reduction Act

The information collection requirements in this policy have been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq and have been assigned OMB control number 2040–0170.

This collection of information has an estimated reporting burden averaging 578 hours per response and an estimated annual recordkeeping burden averaging 25 hours per recordkeeper. These estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Chief, Information Policy Branch; EPA: 401 M Street SW. (Mail Code 2136); Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and

Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

(FR Doc. 94-9295 Filed 4-18-94; 8:45 am)

SILLING CODE 6669-66-P

APPENDIX EE

City of Wood River Responses to Individual Items in USEPA Administrative Order Not Previously Presented in a LTCP Appendix (Item Nos. 5.B., 8.A. & 8.B.)

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

ITEM NO. 5.A)

Document(s) Submitted:

Collection of Records of Implementation and Performance

of Pollution Prevention Practices

Date Document Submitted:

January 3, 2006

Document Certification:

On behalf of the City of Wood River, Illinois, I hereby certify that all written statements contained in this document, which is submitted to USEPA pursuant to the above-referenced Administrative Order, are true and accurate to the best of my knowledge and belief. I also hereby stipulate that should I find, at any time subsequent to the submittal of this document to USEPA, that any of the written statements contained in this document are false or incorrect, I shall so notify USEPA — Region V.

Certification By: Stephen J. Palen, P.E.

Signature:

Title:

Director of Public Services City of Wood River, Illinois

1/3/06

Date:

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CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

SUBMITTAL OF THE CURRENT

COLLECTION OF RECORDS

OF IMPLEMENTATION

AND PERFORMANCE OF

POLLUTION PREVENTION PRACTICES

Prepared By
HORNER & SHIFRIN, INC.

December 2005

SUBMITTAL OF THE CURRENT COLLECTION OF RECORDS OF IMPLEMENTATION AND PERFORMANCE OF POLLUTION PREVENTION PRACTICES

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SUBMITTAL OF THE CURRENT COLLECTION OF RECORDS OF IMPLEMENTATION AND PERFORMANCE OF POLLUTION PREVENTION PRACTICES

PURPOSE AND SCOPE OF POLLUTION PREVENTION RECORDS SUBMITTAL

A. Purpose

The primary purpose of this submittal of the current collection of records of implementation and performance of pollution prevention practices for the City of Wood River, Illinois is to fulfill a requirement stated under Item 5.A) of an Administrative Order issued by USEPA Region V pursuant to Sections 308 and 309(a) of the Clean Water Act (Docket No. V-W-05-AO-16) and received by the City of Wood River on October 6, 2005.

Specifically, Item 5.A) of the above-referenced Administrative Order requires that the City shall submit to USEPA the current collection of records of implementation and performance of Pollution Prevention Practices, as required by the City's modified NPDES Permit's Special Condition 13, Item 6.g & 14, and as required by the City's revised Combined Sewer System Operational Plan.

B. Scope

The above-described specific requirement essentially defines the scope of the necessary submittal, via references to both Special Condition 13, Paragraphs 6.g. and 14. of the City's modified NPDES Permit, and the City's State-approved revised Combined Sewer System Operational Plan.

Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002 contains two important elements of compliance for the City of Wood River's combined sewer system:

Paragraph 6.g.: requires compliance with one of the "Nine Minimum Controls"

contained in the National CSO Control Policy published in the Federal Register on April 19, 1994; which is that pollution prevention programs focusing on source control activities must be established. Furthermore, compliance with this Item shall be met through the requirements imposed by Paragraph 6 of Special Condition 13.

Paragraph 6.:

requires compliance with the objectives of the City's IEPA-approved Pollution Prevention Plan dated December 18, 1997 which is contained within the City's Combined Sewer System Operational Plan, as modified in March 2003.

Paragraph 14.: summarizes compliance dates by which submittals to IEPA were due.

II. CURRENT POLLUTION PREVENTION PRACTICES RECORD-KEEPING

As previously indicated, Item 5.A) of the Administrative Order requires the City of Wood River to submit its current collection of records of pollution prevention practices which would document the City's compliance with the requirements of the City's modified NPDES Permit's Special Conditions and the City's State-approved Combined Sewer System Operational Plan.

In response to Item 5.A) of the Administrative Order, the City acknowledges that staff inadvertently failed to keep any records relating to its pollution prevention practices, as required by the City's modified NPDES Permit's Special Conditions. However, several documents which clearly demonstrate that pollution prevention practices are being followed exist, and are attached for USEPA review.

The documents attached for records submission show that the following pollution prevention practices are being executed:

Community Newsletter:

The Wood River community newsletter, *Pipeline*, contains information on public education including proper disposal of yard wastes, bulk solids disposal, and volunteer litter cleanup projects.

Public Services Website:

The City's Public Services Department website contains information on trash and bulk item disposal, recycling, and yard waste.

NOI for Phase II Stormwater: The pollution prevention practices which are currently implemented by the City in fulfillment of their NOI for Phase Il Stormwater Regulations also meet many of the goals outlined for a Pollution Prevention Plan by the City's modified NPDES Permit's Special Conditions. Records pertaining to the pollution prevention practices which are currently implemented by the City in fulfillment of the NOI Phase II Stormwater Permit are kept separately by the City's Public Services Department.

Ш. PROPOSED MODIFICATIONS TO POLLUTION PREVENTION RECORD-KEEPING

Proposed modifications to improve the City of Wood River's Pollution Prevention Practices Record-Keeping procedures are presented in the document which provides the City's response to Item 5.B) of the Administrative Order.

As required by Item 5.B), the response to Item 5.B) presents a Corrective Action Plan for improving the City of Wood River's Pollution Prevention Practices Record-Keeping.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ANNUAL FACILITY INSPECTION REPORT NPDES PERMIT FOR STORM WATER DISCHARGES FROM MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

Complete each section of this report.		····				
REPORT PERIOD:	FROM:	MARCH :	200	14 TO:	MARCH 2005	
MS4 OPERATOR INFORMATION: (As it as	opears on t	he curren	t pe	ermit)		
NAME: City of Wood River			1	TELEPHONE NUM	BER: 618.251.3122	
MAILING ADDRESS: 501 West Ferguson	on					
CITY: Wood River	STATE:	IL.			ZIP: 62095	
CONTACT PERSON: Steve Palen (Person responsible for Annual Report)						
NAME(S) OF GOVERNMENTAL ENTITY(IE	S) IN WHIC	H MS4 IS	LC	OCATED: (As it app	pears on the current permit)	
Illinois Department of Transportation				Madison County		
Wood River Township			T			
THE FOLLOWING ITEMS MUST BE ADDR	ESSED.					
A. CHANGES TO BEST MANAGEMEN regarding change(s) to BMP and				appropriate BMP	change(s) and attach inform	ation
1. Public Education and Outreach				4. Construction S	ite Runoff Control	⊠
2. Public Participation/Involvement		\boxtimes		5. Post-Construct	ion Runoff Control	
3. Illicit Discharge Detection & Eliminati	on			6. Pollution Preve	ntion/Good Housekeeping	
B. Attach the status of compliance with permanagement practices and progress too MEP, and your identified measurable go	vards achie	ving the s	stat	tutory goal of redu	cing the discharge of pollutants	best to the
C.	····					
Attach results of information collected a	nd analyze	d, includi	ng	monitoring data, if	any during the reporting period	i.
D. Attach a summary of the storm water ac implementation schedule.)	tivities you	plan to u	nde	ertake during the n	ext reporting cycle (including a	an
E. Attach notice that you are relying on and applicable).	other gover	nment en	tity	to satisfy some of	f your permit obligations (if	
		. <u></u>				
SIGNATURE:	Tital		١	DATE: 5/á	13/05	
				-,	/	

Information required by this form must be provided to comply with 415 ILCS 5/39 (1996). Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

IL 532 2585 WPC 691 JANUARY-2003 Madison County Co-Permittee Annual Report Executive Summary – Year 2 IEPA Annual Report for NPDES Permit for Storm Water Discharges From MS4 - Report Period: March 2004 through March 2005

ADMINISTRATIVE REVISIONS TO THE NOTICE OF INTENT

Revisions to the original Notice of Intent (NOI) are reflected below.

MS4 Operator Mailing Address: Yes No

Persons Responsible: Yes No

Name:

Title:

Telephone Number:

Area of Responsibility:

Madison County Co-Permittee Annual Report Executive Summary – Year 2 IEPA Annual Report for NPDES Permit for Storm Water Discharges From MS4 - Report Period: March 2004 through March 2005

EXECUTIVE SUMMARY

Introduction

In 2003, Madison County (County), Illinois and its communities created a Co-Permittee Group to join forces in complying with the National Pollutant Discharge Elimination System (NPDES) for Municipalities Separate Storm Sewer Systems (MS4) Phase II requirements. As stated in the original 2003 Notice of Intent (NOI), the County and the Co-Permittee communities were to pool resources and work together to comply with the commitments made within the NOI for the benefit of all within the County.

Each community joined the Co-Permittee Group by completing and submitting a NOI, executing an inter-governmental agreement between the County and the community and providing some financial assistance to the County to assist with provide the shared deliverables and services.

Best Management Practice (BMP) Summary of Year 2 Activities

As stated in the NOI, each Co-Permittee Member has committed to certain activities to comply with the Phase II requirements. Below is a summary of the BMPs, the resulting activities and the responsible parties.

A. PUBLIC EDUCATION AND OUTREACH

BMP No. A.1 - Distributed Paper Material - Distribute Year 1 brochure at County Fair.

- County Responsibilities Distribute Year 1 brochure at County Fair.
- Co-Permittee Members Responsibilities No responsibilities for this BMP.

<u>BMP No. A.4</u> – Community Event – Sponsor an annual booth at the County Fair. Distribute surveys.

- County Responsibilities Sponsor the annual booth and distribute surveys.
- Co-Permittee Members Responsibilities No responsibilities for this BMP.

B. PUBLIC PARTICIPATION/INVOLVEMENT

<u>BMP No. B.3</u> – Stakeholders Meeting – Issue an annual press release educating the public and inviting participation in the Metro East Regional Storm Water Committee.

- County Responsibilities Issue the annual press release.
- Co-Permittee Members Responsibilities No responsibilities for this BMP. <u>BMP No. B.3</u> – Stakeholders Meeting – Co-Permittee Group to meet and develop annual

<u>BMP No. B.3</u> – Stakeholders Meeting – Co-Permittee Group to meet and develop annua report.

- County Responsibilities Organize the Co-Permittee Group and conduct periodic meetings.
- Co-Permittee Members Responsibilities Co-Permittee Group to conduct meetings and develop annual report.

Madison County Co-Permittee Annual Report Executive Summary – Year 2 IEPA Annual Report for NPDES Permit for Storm Water Discharges From MS4 - Report Period: March 2004 through March 2005

BMP No. B.6 Program Coordination; C.5 Illicit Source Removal Procedures – Program Coordination – Set up the following programs: (1) Adopt-A-Stream, (2) Inlet Stenciling, and (3) Annual Stream Cleanup Day.

- County Responsibilities Set up the programs. (Note: Program implementation for Adopt-A-Stream and Inlet Stenciling is deferred to Year 3.)
- Co-Permittee Members Responsibilities Participate in programs.

C. ILLICIT DISCHARGE DETECTION AND ELIMINATION

<u>BMP No. C.1</u> – Storm Sewer Map Preparation – Begin to assemble missing Storm Sewer Map information.

- County Responsibilities Coordinating use of GPS equipment bought for outfall mapping. Coordinating GIS information collected for inclusion in county-wide outfall map.
- Co-Permittee Members Responsibilities Begin to assemble missing Storm Sewer Map information.

BMP No. C.2 – Regulatory Control Program – Adopt Illicit Discharge Ordinance.

- County Responsibilities Adopt Illicit Discharge Ordinance. (Note: Ordinance adoption by the County is deferred to Year 3.)
- Co-Permittee Members Responsibilities No responsibilities for this BMP.

<u>BMP No. C.5</u> – Illicit Source Removal Procedures – Compare Madison County lab usage for illicit detection with Baseline Year 1.

- County Responsibilities Compare lab usage for illicit detection with Baseline Year 1.
- Co-Permittee Members Responsibilities Compare lab usage for illicit detection with Baseline Year 1.

D. CONSTRUCTION SITE RUNOFF CONTROL & E. POST-CONSTRUCTION RUNOFF CONTROL

BMP No. D.1 & E.2 Regulatory Control Program; D.4 Site Plan Review Procedures; E.4 Pre-Construction Review of BMP Designs – Adopt modified ordinances for construction site and post-construction site runoff issues.

- County Responsibilities Adopt modified ordinances. (Note: Ordinance adoption is deferred to Year 3.)
- Co-Permittee Members Responsibilities No responsibilities for this BMP. BMP No. D.6 – Site Inspection/Enforcement Procedures – Offer training courses for construction site inspection to Co-Permittee communities.
- County Responsibilities Offer the training courses to Co-Permittee communities.
- Co-Permittee Members Responsibilities Community inspectors to attend the training courses.

Madison County Co-Permittee Annual Report Executive Summary – Year 2 IEPA Annual Report for NPDES Permit for Storm Water Discharges From MS4 - Report Period: March 2004 through March 2005

F. POLLUTION PREVENTION/GOOD HOUSEKEEPING

<u>BMP No. F.1</u> – Employee Training – Offer training courses for construction site inspection to Co-Permittee communities.

- County Responsibilities Coordinate training and operators attend training.
- Co-Permittee Responsibilities Operators attend training.

<u>BMP No. F.6</u> – Other Municipal Operations Controls – Standard Operating Procedures – Review operating procedures and modify, if necessary.

- County Responsibilities Review operating procedures and modify, if necessary.
- Co-Permittee Members Responsibilities Review operating procedures and modify, if necessary.

														•
COMMUNITY NAME:			City of	`Wood R	liver							PERMIT#:	ILI	R400479
IEPA Annual Report fo	or N	PDE	ES Permit fo	or Storm	Water	Discharges from	MS4 - Report Per	iod: 1	March	200	14 th	rough Marc	h 2005	
	MA W	TO ANA Jere hang	HANGES BEST GEMENT there any ges to the MPs?	B. The status of compliance with the permit, the appropriateness of the BMP and progress towards achieving reduction of discharged pollutants to the MEP, and your identified measurable goals for each of the minimum control measures.							of interest of int	vide results formation ected and alyzed, cluding oring data. ormation tached?	D. Summarize the storm water activities you plan to undertake with an implementation schedule	
	Y E S	N O	Comment		Appropriate ness? Y N							What is Attached?	Activity	Schedule
BMP No. A.1 – Distributed Paper Materials – Informational Brochures		X		distribu	Madison County creates Year 1, 3, 5 brochures and distributes to communities. Also distributed brochures at County Fair.									
Milestone for Year 2: Distribute Year 1 brochure at County Fair.		х		distribu						x		Description of other activities. See Page 9.	Madison County is responsible for the booth and distribution.	During County Fair
Milestone for Year 3: Distribute Year 3 brochure to residents. Train employees and businesses.		X	XPANKI I SPEKA NI			uner half to supplies the William and the State of the St		X	The state of the s					
BMP No. A.4			(2) (3) (9) (3)	Madica	- Count	v op angara baath	t County Foir		L made	40.34	de rie	or specifications		
Community Event – Annual Booth		Х			Madison County sponsors booth at County Fair. X The storm water booth was again sponsored by the County. Fifteen completed surveys were received.									
Milestone for Year 2: Sponsor County booth. Distribute surveys.		Х								X		Review of surveys. See Page 9.	Madison County is responsible for the booth and survey data collection.	During County Fair

Χ

Х

Milestone for Year 3:
Sponsor County booth.

Distribute surveys.

COMMUNITY NAME:			City of	Wood River					PERMIT #:	II i	R400479
IEPA Annual Report for	or NI	PDE	ES Permit fo	or Storm Water Discharges from MS4 - Report Per	iod: l	March	200				(400712
	M.A W	TO NA ere hang	HANGES BEST GEMENT there any ges to the MPs?	B. The status of compliance with the permit, the approach of the BMP and progress towards achieving reduction discharged pollutants to the MEP, and your identification measurable goals for each of the minimum control of the minim	C	of inf colle and inc onite Info	vide results formation cted and alyzed, luding oring data. rmation ached?	D. Summarize the storm water activities you plan to undertake with an implementation schedule			
	Y E S	О	Comment		Y E S	N O	What is Attached?	Activity	Schedule		
	No.	湖	regional regions (regions)	Nin salagganis na raya, kamanan kurasa kanan	Apply of Aller	Section of	弹制物	da ja	and the second		
BMP No. B.3 Stakeholders Meeting – Annual Press Release		Х	Marie Marie Commission and Commissio	Madison County is responsible for the annual press release.	X		992,800,8138				
Milestone for Year 2: Issue press release concerning Storm Water Committee.		Х		Madison County issued press releases to the <i>Illinois Business Journal</i> February 200 5 . <i>Illinois Business Journal</i> publicized in an article the purpose and activities of the Metro East Regional Storm Water Commission.	X			Х		Madison County is responsible for the annual press release.	Annual
Milestone for Year 3: Issue press release concerning Storm Water Committee.		X			X					Tolouse.	
		(4.5) (4.5)	學學的 學明			ing district		elde pron	الله دران المحمول الله الإطالة ومن	an and an early little and an	Managaria e
BMP No. B.3 Stakeholders Meeting – Coordinating Meetings & Annual Reports		X		Madison County is responsible for scheduling the meetings and coordinating the annual report compilation.	X						
Milestone for Year 2: Co-Permittee Group Meeting at least once per year. Develop and submit annual reports.		x		Co-Permittee meetings were held on 5/12/04, 8/25/04, and 11/10/04. Annual reports were developed and distributed 5/12/04.	X			X		Madison County is responsible for meetings and compiling the annual	Annual report to be completed before June 2005.

reports.

COMMUNITY NAME: City of Wood River	PERMIT #:	ILR400479
IEPA Annual Report for NPDES Permit for Storm Water Discharges from MS4 - Report	Period: March 2004 through March 2005	

	M.	TC ANA Were chan	HANGES) BEST AGEMENT there any ges to the MPs?	B. The status of compliance with the permit, the appropriateness of the BMP and progress towards achieving reduction of discharged pollutants to the MEP, and your identified measurable goals for each of the minimum control measures.						of inf colle and inc onite Info	vide results formation ected and alyzed, cluding oring data. formation ached?	D. Summarize the storm water activities you plan to undertake with an implementation schedule	
	Y	N	Commont		Appro	Y E	N	What is Attached?	A 54:0:44.	Schedule			
	E S	0	Comment				Y	N	S	0	Attached?	Activity	Schedule
Milestone for Year 3: Co-Permittee Group to meet at least once per year. Develop and submit annual report.		x					X						
	的機	W. Co				,	l Assemble		ile.	(A) (TOH)		and the state of the first of the state of t	
BMP No. B.6 & C.5 Program Coordination - Adopt-A-Stream, Annual Stream Cleanup Day, Inlet Stenciling, & Hotline		X		Madison County is responsible for a development and coordination.	program		X						
Milestone for Year 2: Set up Adopt-A-Stream program. Set up inlet stenciling program.	X		Implement- ation of Adopt-A- Stream and Inlet	Annual Stream Cleanup Day was co 10/22/04.			X		X		Review of annual Stream Cleanup		
Initiate Annual Stream Cleanup Day.			Stenciling are being deferred to Year 3.	Did the community participate in the annual Stream Cleanup Day?	Yes	No	1			Χ	Day. See Page 9.		
Milestone for Year 3: Sponsor annual Stream Cleanup Day.		X		,			X				į		
	Vin 12		Mac Signal	e la Maria de Caración de Para	ulidhar ir	编·苏东约:			riplicity	himidalia)	Constraint of the gran	Control of the Contro	

COMMUNITY NAME:	City of Wood River	PERM	<i>IIT #:</i> <u>ILR400479</u>
		ges from MS4 - Report Period: March 2004 through	March 2005

	M.	TC ANA Vere han	HANGES BEST GEMENT there any ges to the MPs?	B. The status of compliance with the permit, the approf the BMP and progress towards achieving reduction discharged pollutants to the MEP, and your identification measurable goals for each of the minimum control resource.	m	of incollection of incollectio	vide results formation seted and alyzed, cluding oring data. ormation eached?	D. Summarize the storm water activities you plan to undertake with an implementation schedule			
	Y E S	N O	Comment	Appropriate Y ness? F					What is Attached?	Activity	Schedule
BMP No. C.1 Storm Sewer Map Preparation	х			Madison County develops Storm Sewer Map from data provided by Co-Permittee communities.	X						
Milestone for Year 2: Obtain missing sewer data.	X		Minimal existing data.	Begin comprehensive GPS outfall mapping on county-wide basis. Madison County to provide access to GPS equipment for communities without such equipment.	X	77773	X		Status of outfall mapping. See Page 9.	Collect storm sewer data and submit to Madison County.	Throughout the year with an emphasis on leaf-off.
Milestone for Year 3: Assemble Storm Sewer Map.		х			X						
en in programme policies and		100				Son Gorgin			a de la companya de l		Jan Color Brain
BMP No. C.2 Regulatory Control Program – Ordinance Language for Illicit Discharge		Х		Madison County revises ordinance language to comply with Phase II requirements.	X				ann an Thirtie ann a		13 and 2 (\$5°) 1954 (chr.)
Milestone for Year 2: Madison County to adopt revised ordinance.	Х		Madison County's adoption of revised ordinance deferred to Year 3.		X			Х			

COMMUNITY NAME: City of Wood River									PERMIT #:		R400479
IEPA Annual Report for	or N	PDI	ES Permit fo	or Storm Water Discharges from MS4 - Report Per	riod: I	March	200)4 tl	rough Marc	h 2005	
	M.	TC ANA Vere han	HANGES BEST GEMENT there any ges to the MPs?	B. The status of compliance with the permit, the app of the BMP and progress towards achieving redu discharged pollutants to the MEP, and your ide measurable goals for each of the minimum control		of in coll- ar in onit	ovide results formation ected and alyzed, cluding coring data. ormation tached?	D. Summarize the storm water activities you plan to undertake with an implementation schedule			
	Y E S	N O	Comment			opriate ess? N	Y E S	И О	What is Attached?	Activity	Schedule
Milestone for Year 3: Incorporated Co- Permittee communities to adopt Illicit Discharge Ordinance.		x			X		The state of the s				
	124		计等点信息					Ge all a			and the same of the same of
BMP No. C.5 Illicit Source Removal Procedures		x		Madison County offers free lab services for illicit source detection.	x						
Milestone for Year 2: Compare Year 2 lab usage to Year 1 usage.		X		Madison County tracks lab usage for illicit source detection. Not used. Publicize better.	X		X		Review of lab usage for illicit discharge detection. See Page 9.	Track lab usage.	Annually.
Milestone for Year 3: Compare Year 3 lab usage to Year 2 usage.		x			X					Track lab usage.	Annually.
		1944			10 10 15 44 10 18		-	e de la companya de l		ji i je	ple marketon
BMP No. D.1 & E.2 and D.4 & E.4 Site Plan and Pre- Construction Review Procedures		Х		Madison County revises/develops model ordinance language for current Phase II requirements.	X						

COMMUNITY NAME: City of Wood River							_		PERMIT#:		R400479				
IEPA Annual Report fo	or N	PDI	ES Permit fo	for Storm Water Discharges from MS4 - Report Period: March 2004 through I								rough Marc	h 2005		
	M.	TC ANA Vere chan	HANGES BEST AGEMENT there any ges to the MPs?	B. The status of compliance with the permit, the appropriateness of the BMP and progress towards achieving reduction of discharged pollutants to the MEP, and your identified measurable goals for each of the minimum control measures. Appropriate						C	of info	vide results formation ected and alyzed, bluding oring data. ormation eached?	D. Summarize the storm water activities you plan to undertake with an implementation schedule		
	Y E S	N O	Comment		ness? E					Y E S	И О	What is Attached?	Activity	Schedule	
Milestone for Year 2:	X		Madison County's adoption of revised ordinance being deferred to Year 3.						X			Х			
Milestone for Year 3: Incorporated Co- Permittee communities will adopt ordinances for construction site and post-construction site runoff issues.		Х							X					Adopt ordinances.	Year 3
		(Tayl		district the property of the second s											
BMP No. D.6 Site Inspection/Enforcement Procedures – Training		х		Madison County training course.	-			ector	Х						
Milestone for Years 1 & 2: Offer Inspector Training Program to the Co-Permittee community inspectors.		X		Madison County inspector trainin inspectors. (*No Community sent representatives	g progra	m for con	nmunity	How Many?	х			Χ		Community inspectors to attend inspector training.	Every other year; one-day training course.

					•								•	
COMMUNITY NAME:	•		City of	Wood River								PERMIT#:	IL	R400479
IEPA Annual Report for		PDE			charges fro	m MS4 -	Report Per	iod: 1	March	200	4 th	rough Marc	h 2005	
	M _z	TO ANA Vere hang	HANGES BEST GEMENT there any ges to the MPs?	B. The status of compliance with the permit, the appropriateness of the BMP and progress towards achieving reduction of discharged pollutants to the MEP, and your identified measurable goals for each of the minimum control measures.						m	of info	vide results formation seted and alyzed, cluding oring data. ormation tached?	D. Summarize the storm water activities you plan to undertake with an implementation schedul	
	Y E S	N O	Comment		Appropriate ness?						N 0	What is Attached?	Activity	Schedule
Milestone for Year 3: No milestone was identified for Year 3.		x			- · · · · · · · · · · · · · · · · · · ·			X						
		1	e contra guidant					and Care		id di 1980) Maria	db+∂a Vaxa		ika sa kalabasi si	
BMP No. F.1 Employee Training		X		Madison County de operations training.	velops and s	sponsors g	overnment	x						
Milestone for Year 2: Offer annual training.				Community sent representatives	Yes	No	How Many?	1	7	, ,		,	Madison County is	Annual
		х		representatives	X		(Х			ኦ		responsible for sponsoring training courses.	
Milestone for Year 3: Offer training for														

X

Х

X

X

Municipal Operations

BMP No. F.6 Other Municipal Operations Controls – Standard

Operating Procedures

to Co-Permittee communities.

1				The second secon										
COMMUNITY NAME:			City of	Wood River				_		PERMIT#:		R400479		
				or Storm Water Discharges fro	m MS4 - Report Per	riod: N	March	200	4 th	rough Marc	h 2005			
	A	. C	HANGES	B. The status of compliance wi	ith the permit, the appr	ropriate	eness	C.	Pro	vide results	D. Summar	ize the storm		
			BEST		of the BMP and progress towards achieving reduction of							water activities you plan		
	M	ANA	GEMENT		discharged pollutants to the MEP, and your identified							to undertake with an		
	l		there any	measurable goals for each of	neasurable goals for each of the minimum control measures.						implementat	ion schedule		
	C		ges to the MPs?					m		cluding oring data.				
		,,	171. 51							ormation				
						,			At	tached?				
	Y	N				Appro	priate	Y	N	What is				
	Ε	0	Comment			ne	1	E	Ο	Attached?	Activity	Schedule		
	S					Y	N	S			.			
Milestone for Year 2: Review operating				Were written operating procedures reviewed and	Yes No						Review procedure	Annual		
procedures and modify		Х		modified where necessary?		1	. ,	i i i	and modify					
if necessary.					V	t t			Χ	 	as			
				, , ,	\sim					! 	necessary.			
Milestone for Year 3:											Review	Annual		

E. Attach notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable) (other than described in Executive Summary).

 \mathbf{X}

procedure

as necessary.

and modify

 \mathbf{X}

Review operating

if necessary.

procedures and modify

COMMUNITY NAME:	City of Wood River		<i>PERMIT</i> #: _	ILR400479
JEDA Annual Deport for N	IDDES Permit for Storm Water Discharge	of from MSA. Report Period: Mai	rch 2004 through March	2005

BMP A.1 Description of Other Activities

A booth was also sponsored at the Bethalto Homecoming. In addition, the County Storm Water Coordinator helped sponsor the Lewis & Clark Water Festival for 1,000 fifth graders where educational literature and giveaways were distributed. Several thousand pieces of educational literature were distributed throughout Year 2.

BMP A.4 Review of Surveys

From several hundred surveys that were distributed, 15 were completed and returned. From a review of the surveys, citizens were mainly concerned with flooding issues in their neighborhoods. Awareness concerning pollutants in storm water was not perceived as important of an issue.

Throughout the year, Madison County sponsored other community events that could potentially impact storm water quality in a positive way, such as a tire collection day and several discarded household paint collection days. These activities encourage public participation as a positive way to prevent pollutants in the storm water.

BMP B6 & C.5 Review of Annual Stream Cleanup Day

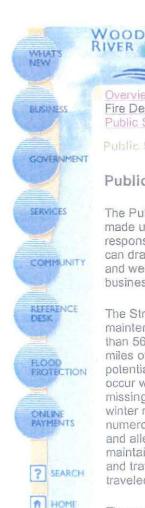
On October 22, 2004, the Co-Permittee Group sponsored a Stream Cleanup Day. The target list of streams included public easements 200 feet upstream and downstream of County highway bridges. The Stream Cleanup Day collected approximately 21 tons of tires, 2,000 pounds of appliances, and 6 tons of general trash.

BMP C.1 Status of Outfall Mapping

Because minimal data existed for communities concerning locations of existing outfalls, the County Storm Water Coordinator and representatives of the County GIS Department acquired GPS equipment and developed protocols for county-wide mapping of storm water outfalls. The Co-Permittee communities are working with the County to begin GPS mapping of outfalls in their receiving streams.

BMP C.5 Review of Lab Usage

The County's lab services that are available for free for the Co-Permittee communities tracking illicit discharges in the storm water were not used in Year 2. The County will have to publicize better the services offered and find opportunities to assist Co-Permittee communities with illicit discharge detection during Years 3 through 5.



SITE MAP

SERVICES



Overview | Parks and Rec | Building and Zoning | City Manager | Clerk's Office Fire Department | Finance Department | Police Department | Public Services Department | Taxes

Public Services

Public Services

The Public Services Department, which is made up of 4 separate divisions, is responsible for numerous functions that can dramatically impact the health, safety and welfare of community residents and businesses.

The Street Division oversees the maintenance and improvements to more than 56.4 miles of roads and over 42.7 miles of alleys. This includes monitoring for potentially hazardous conditions that can occur when traffic signs and signals are missing or not operational. During the winter months, the division works numerous overtime shifts to ensure roads and alleys are properly cleared and maintained for the safety of those living



Steve Palen, Director of Public Services

and traveling in the community. Street crews begin with roads that are most frequently traveled before moving to secondary or subdivision roads.

Through the water and sewer treatment plants, the Water and Sewer Division employees oversee the daily operations of the facilities that provide safe and quality water to more than 4,500 customers. Together, both divisions maintain more than 73 miles of water lines and 56 miles of sewer lines.

To report concerns regarding water mains, sewer problems, street maintenance, traffic signs or other related activities, please do not hesitate to contact Public Services at (618) 251-3122.

Curbside Trash and Recycling Pickup



The City contracts with Midwest Sanitary Services to provide regular trash and recycling pick-up services for residents. Curbside pickup is available for regular trash on the first collection day of the week and recyclable materials on the second collection day. For example, residents with Monday and Thursday pick-up will have their regular trash collected on Monday and recyclable materials on Thursday. Regular and recyclable trash is collected only on its designated day. For those with alley pick-up, please continue to place the regular trash in

the alley. However, recyclable trash must be placed front curbside in the provided blue recycling bins.

Should a holiday occur on a regular pick-up day, service will be provided the following day for either trash or recyclable. For example, if a holiday falls on a Monday, that route will be picked up on Tuesday, and the Tuesday route picked up on Wednesday. If there is a Thursday holiday, that route will be picked up on Friday and Friday's route on Saturday. Holidays observed by the hauler are New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving, and Christmas Day.

For a missed pick-up, please contact Midwest Sanitary Services at (618) 254-0171. For additional information or report concerns, please contact the Public Services at (618) 251-3100. Free blue bin recycling containers are available through City Hall at 111 N. Wood River Ave. during normal business hours should you need to replace a broken or lost one.

Recycling Information:

- Aluminum and Steel rinse out tin food cans and aluminum cans and loosely place in blue recycling bin (do not bag).
- Glass clear, green, blue, and brown colored bottles and jars. Do not bag, loosely place in blue bin. Labels do not have to be removed. Food must be rinsed out. Lids should be removed and placed with regular trash. Window glass, drinking glasses, light bulbs, and ceramics are not allowed for recycling.
- Plastic All milk, juice, soft drink, water and laundry detergent bottles bearing the code 1 or 2, usually found in a triangle on the bottom of the container are accepted. Caps must be removed and placed with regular trash. (No plastic containers with petroleum products permitted.)
- Paper Newspapers, magazines, junk mail, cardboard, clean food boxes, gift boxes, phone books, catalogs, brown paper bags, etc. (No cardboard milk or juice cartons or containers contaminated by food waste or any paper product with a wax coating. Plastic liners in food boxes should be removed and placed with regular trash.)
- Newspapers must be packed in paper grocery bags and set next to or on top of the blue recycling bin. Mixed paper (magazine, junk mail and office paper) must be packaged separately in paper grocery bags and placed inside the blue recycling bin. Cardboard boxes must be flattened and no larger than 2' x 2' and tied with string.
- Items not accepted disposable diapers, plastic foam products (egg cartons), plastic grocery bags, aluminum foil, plastic toys, paper towels, napkins, toilet paper and any plastics marked with the code usually found in a triangle on the bottom of the container that is other than 1 and 2.

Bulk Item Pick-Up

For those bulk or oversized item, the City can provide a few options for proper disposal.

- Spring & Fall Clean-Up: This popular service provides residents the opportunity
 to dispose of large items curbside free of charge. Generally clean-up times are
 during the month June and again in October. Schedules of clean-up are
 published in the Pipeline Community Newsletter and are available through City
 Hall. Should you have question regarding what is acceptable, please call Public
 Services (618) 251-3122 or the Finance Department at (618) 251-3131.
- Dumping Facility: A large dumpster is available for a small fee to residents for furniture or other large items year round at the City Garage located at the corner of 14th Street and Madison Ave. (Route 143). During the following hours: Monday, Friday and Saturday 8:00am to 4:00pm; and Sunday from noon to 4:00pm for the following fee as effective March 18, 1996:

for a single item

loaded to the top of the pickup truck bed

loaded to the top of the pickup cab

loaded over the top of the pickup cab

For additional questions, please contact Public

Services at (618) 251-3122.

Curbside Pick-Up: The City can arrange for a Wednesday pick-up of large or bulk items for a fee of \$35 for each 3 cubic yards of volume. The refuse hauler will pick-up curbside of your residency. For additional information or schedule a pick-up, please contact the Finance Department at (618) 251-3131.

Landscape and Yard Waste

Because of changes mandated by the State of Illinois, no landscape materials, such as grass, leaves, brush trimmings, or branches, can be collected for or enter any landfill. As a result the City's refuse hauler is unable to collect landscape or yard waste with regular trash pick-up. However, residents do have a few options about how to legally dispose of landscape and yard waste.

Residents can:

 Compost in the backyard - Pamphlets are available at City Hall or on request with instructions on creating a backyard composting facility.

 Contract for Landscape Curbside Collections - Although the City is not in the landscape collection business, Sanders Disposal Hauling is available for those residents who wish to make special accommodations for curbside collection. For more information, please contact Sanders Disposal Hauling at (618) 465-8461.

- 3. Take Grass and Leaves to the City Garage A drop-off facility is available at the City Garage, located at the corner of 14th Street and Madison Ave. (Route 143), where grass and leaves (yard waste) are accepted free of charge beginning May 1, 2001. Anything in plastic bags will have to be opened and dumped into the containers. Paper bags will be accepted. There is a \$5.00 charge for brush disposal.
- 4. Leaf Burning Outdoor burning of leaves, plants, shrubs and small limbs is allowed on private property, on Wednesday and Saturday only during the time period of October 1st through April 30th of each year. Burning must take place during daylight hours, only during a calm weather period with winds of less than 10 miles per hour. All burning must be supervised and a water hose must be available to extinguish a fire, if necessary. No leaf burning shall be allowed on any public street or alley.
- 5. Leaf Pick-Up: Generally beginning in October until December, the City will provide residents the opportunity for a free leaf pick-up for those leaves that are raked to the curb. Please do not rake leaves into the gutter. During rains, leaves may wash into the storm drainage system and cause unnecessary back ups. A leaf pick-up schedule is published in the fall edition of the Pipeline Community Newsletter. For additional information, please call City Hall at (618) 251-3100.
- Brush Hauling: Residents can schedule for tree limbs to be picked-up curbside for a fee of \$25 per truckload by contacting the Finance Department at (618) 251-3131. Pre-payment and scheduling arrangements must be done in advance.

For additional questions, please contact either City Hall at (618) 251-3100 or Public Services at (618) 251-3122.

CSO Updates

Date Estimated Flow

Rainfall

Duration

 November 28
 20 MG
 1.55"
 5.5hours

 November 14
 25 MG
 1.05"
 9 hours

Home | Business | Government | Services | Community
Flood Information | Online Payments | Reference Desk
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The City of Wood River, Illinois 111 North Wood River Avenue Wood River, Illinois 62095 (618) 251-3100

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PIPELINE

May 2005

Upcoming Events

May 7 & 8 Camp DuBois Rendezvous

> May 23-27 Hydrant Flushing

May 28 Opening Day of Aquatic Center

June 4 Youth League Parade

June 6-16 Spring Clean-up (See Page 3)

10:00 a.m.

June 18

Aquatic Center Family Day 20th Anniversary Celebration

July 31 Dash & Splash

August 13 20th Annual Triathlon

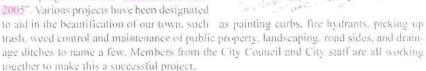
Mayor & Council Sworn In for New Term

The new City Council was seated on April 18 to begin a four-year term of office. Newly-elected Mayor Fred Ufert, Councilwoman Cheryl Maguire and Councilman Bill Redden were sworn in by City Clerk Jan Sneed.

The City appreciates the dedication and service of David L. Ayres who served the citizens of Wood River for 6 years (2 as Councilman and 4 as Mayor). We are grateful for his contributions.

Taking Pride In Our Community

Beautification and appearance of our City is the key goal in the re-establishment of a 1988 program entitled **CLEAN SWEEP 2005**. Various projects have been designated



These first year projects are being selected by the Mayor and Council. The program will be supervised by the Parks & Recreation and the Public Services Departments. We are hoping our citizens will join in our efforts and enhance the appearance and beautification of their properties as well to make Wood River a better place to live, work and play. We are hopeful the program will grow each year and instill a sense of community pride in our residents. Another goal of this program is to provide a clean public image for the enhancement of economic development.

Child Safety Seat Requirements Help Save Lives

The Wood River Fire Department has two lirelighters certified through the National Highway Traffic Safety Administration to install child passenger safety seats. Over the past year they have installed in excess of 35 child safety seats.

The Illinois law regarding the use of child restraint systems was changed. The changes went into effect on 1-1-04. The new law contains some age changes and an addition pertaining to a child's weight. The information on this page contains these changes.

CHILD RESTRAINT LAW

The Illinois Child Passenger Protection Act requires anyone who transports children in Illinois in non-commercial vehicles to do so in the following manner:

- Children under age 8 must be secured in an approved child restraint system, more commonly known as a child safety seat. Child
 safety seats include infant seats, convertible seats (rear facing for infants and forward facing for toddlers) and booster seats
 that are used with the vehicle lap and shoulder belt system.
- Children weighing more than 40 pounds may be transported in the back seat of a motor vehicle while wearing only a lap beh if
 the back seat is not equipped with a lap and shoulder belt system for booster seat installation.

Continued next page

Clean Sweep

2005

Continued from front page

- Children ages 8 through 15 must be secured either in a safety scat or by a safety belt in any position in the vehicle.
- The parent or legal guardian of a child under the age of 8 years is responsible for providing a child safety seat to anyone who transports his or her child.
- Every person under the age of 18 years who transports a child 8 years of age and older (up to 18 years) is responsible for securing that child in a properly adjusted and fastened safety belt.

Those found in violation of the law the first time will be fined \$50, which is waived upon proof of possession of an approved seat. The fine for subsequent violations is \$100.

Children with physical disabilities that prevent the use of standard safety seats are exempt from the provisions of the law if the disability is duly certified by a physician.

The National Highway Traffic Safety Administration's web site at http://www.nhtsa.dot.gov/people/injuty/childps/ has plenty of additional information relating to child safety seats, including a usage chart (which includes weight considerations) and a One Minute Safety Seat Checklist.

PLEASE NOTE: It is nationally recommended that all children age 12 and under ride in the back seat.

Anyone wishing to have a car seat installed or a safety check performed or for further information should call the Wood River Fire Department at 618-259-0984 and schedule an appointment.

Proper Yard Waste Disposal

Yard waste consisting of tree limbs, brush, leaves, and grass elippings may be disposed at the 14th Street City Facility free of charge on Monday, Friday, and Saturday from 8 a.m. to 4 p.m. and Sundays from Noon to 4 p.m. REMEMBER - Leaf burning is NOT allowed from May 1 to September 30.

YOU CAN HELP

Reduce Water Bills

There are ways you can reduce your water bill, and also help reduce costs for the City, that will ultimately affect your rate:

- Pay for what you use, not what you lose—check for leaking faucets and toilets. 90% of water leaks come from toilets and this can be costly. One drop of water per second from a leaky faucet can add up to as much as 4 gallons per day. Toilets constantly running can use 100,000 gallons of water in 12 months.
- 2) Conserve water by reducing shower time, reduce water level in totlet, etc.
- 3) Any article flushed down the stool (such as emptied ashtrays. Kleenex and other solids) enters the treatment plant and is treated as a solid. Treatment of solids is costly to the City and increases the total costs of operation.

We hope these little tips are helpful and thank you for your cooperation.

City Boards And Commissions

City commissions and boards play a vital part in our City government. Many of our citizens volunteer their time to serve on the various boards, such as the Traffic Commission, Parks & Recreation Advisory Commission, Planning Commission, Board of Zoning Appeals, Library Board, Stormwater Commission, Fire & Police Commission, and Appearance Committee.

If you are interested in serving on one of these boards/commissions, please contact City Hall at 251-3100.

Deposits on Streets & Sidewalks

It shall be unlawful for any person, firm, or corporation to dump or deposit any grass, leaves, branches, gumballs, glass, nails or other similar articles, or any waste material on any public street, alley, or sidewalk in the City.

PUBLIC NOTICE -

Attn: Wood River Property Owners/Occupants

All City of Wood River property owners and occupants of real estate are hereby notified by this notice of the City's weed control ordinance and enforcement.

It shall be unlawful for any owner or occupant of any lot of ground or premises to allow such lot or premises or any right-of-way or sidewalk adjoining such lot or premises, to be encumbered by any growth of grass or weeds over a height of eight inches.

Whenever any owner or occupant of real estate neglects to cut weeds or grass, as defined above, the weeds or grass may be cut by the City. The property owner will be billed for all expenses involved in having the weeds or grass cut. If the property owner fails to pay the billed expenses within 30 days, a lien may be filed pursuant to ILCS Ch. 65. Art. 5 § 11-20-7.

Please help by properly maintaining your property. Thank you

What You Need to Know Before You Dig -

When prompted by a JULIE locate request, utility companies will come to a specific address or site and mark the location of their underground utilities. JULIE is an acronym for Joint Utility Location Information for Excavators. This organization coordinates requests made by contractors, municipalities, and individuals for the location of underground utilities, when any kind of digging or excavating is proposed to be undertaken.

What do those painted colors on the grass and street mean? Illinois has a standardized color code system for different utilities, as follows:

YELLOW: gas, oil, or petroleum utilities; RED: electric utilities; ORANGE: Communications, telephone, or TV utilities; BLUE: potable water utilities; GREEN: sewer utilities; WHITE: proposed area of excavation

If you are planning on digging, then call JULIE toll-free at least 48 hours before you plan to dig at 1-800-892-0123. For more information about JULIE, please visit their web site at www.julie1call.com.

Schedule AREA	for Spring Cl DAY OF PIC	lean Up KUP
Y	Monday	
.2	Tuesday	June 7
3	Wednesday	June 8
4	Thursday	June 9
.5	Monday	June 13
65	Tuesday	June 14
7	Wednesday	June 15
8	Thursday	June 16

Spring Clean Up

The annual Spring Clean-up is scheduled for June 6 through June 16, 2005. To assure pickup, all items must be placed at the front curb by 8:00 A.M. on the scheduled day. AFTER THE TRUCK HAS BEEN IN YOUR AREA, IT WILL NOT RETURN. If we fall behind schedule we will continue where we left off the following day. The City will pickup up large bulky items such as sofas, chairs, bedroom furniture, mattresses, tables, carpet, and tv's.

.. REGULATIONS ..

Since July 1, 1992, the State of Illinois has banned "white goods" from landfills. Therefore, we are sorry that we will not be able to pick up the following items: stoves, furnaces, refrigerators, hot water heaters, washers, air conditioners, dryers, humidifiers, freezers, de-humidifiers, dishwashers, trash compactors,

OTHER ITEMS THAT WILL NOT BE PICKED UP BE-CAUSE THEY ARE RESTRICTED IN THE LANDFILLS ARE:

- · tires, automobile batteries, wheels, and large parts
- brush and landscape waste (leaves, grass, etc.)
- · gasoline, motor oil, anti-freeze, etc.
- liquid waste
- · hazardous waste
- unopened barrels
- concrete blocks
- large amount of building materials

Lumber will be accepted if it is cut into 4 foot lengths and tied in bundles weighing 75 pounds or less.

.. SPECIAL PICKUPS ...

Each Wednesday, Midwest Sanitation will pick up bulky items in front of your house for \$35 a truckload. You may make arrangements for this special pickup at your home by calling 251-3131.

If you have any questions, or need additional information, call the Public Services Department at 251-3122.

Notes From Building & Zoning

BUILDING & ZONING

Building Permits - Play it safe and always check with the Building & Zoning Department (251-3100) before starting any type of remodeling or new construction work. In addition to major construction, permits are required for roofs, fences, carports, remodeling, swimming pools, storage sheds, electrical service, etc. Prior to a permit being issued, a site plan, detailing the location of the proposed fence/pool/deck, height of fence, the lot size and setbacks, and whether such lot is located on a corner, has to be reviewed by the Building & Zoning Director. Property owners failing to obtain a building permit are subject to fines and other penalties.

Keep It Short - Just a reminder, Spring is here - grass and weeds must be kept under 8" to comply with City ordinance. Let's help each other. If the City has to send you a letter and has to cut your grass, it ends up costing you a lot more than having it done yourself.

Clean Up Alleys -We receive many complaints about trash in alleys, so please help keep the alleys clean by placing your trash in tightly covered containers.

Recreational Vehicles and Utility Trailers - Any recreational vehicle or utility trailer stored in a residential district shall comply with the following guidelines:

- Not more than one recreational vehicle or utility trailer shall be parked on any lot.
- The parking of a recreational vehicle or utility trailer is allowed in the rear yard only.
- The parking of a recreational vehicle or utility trailer shall comply with the yard requirements for accessory buildings of the district in which it is located.
- The parking of a recreational vehicle or utility trailer shall not impede the light or air of a neighboring structure.

Vehicles parked on public and/or private property MUST be licensed and operable. If a vehicle does not comply, the City can have the vehicle towed at the owner's expense.

Parking in residential districts shall not be located in any required front yard, except in a driveway. Parking may be located in the side or rear yards as well.

Notice: Publishing The Map Information Service

NOTICE TO: Lending Institutions and Real Estate and Insurance Agents

SUBJECT: Flood Insurance Rate Map Information

As a public service, the City of Wood River will provide you with the following information upon request: Whether a property is in or out of the Special Flood Hazard Area (SFHA) as shown on the current Flood Insurance Rate Map (FIRM) of the City.

Additional flood insurance data for a site, such as the FIRM zone and the base flood elevation or depth, as shown on the FIRM. We have a handout on the flood insurance purchase requirement that can help people who need a mortgage or a loan for a property in the SFHA.

If you would like to make an inquiry, please tell us the street address and, if available, the subdivision, lot and block number. The Department of Building & Zoning is open 8 a.m. to 5 p.m., Monday through Friday. Call us at (618) 251-3100 or visit our office at City Hali. There is no charge for this service. The Department also has completed FEMA Elevation Certificates for buildings that were constructed in the floodplain since 1983.

Animal Regulations For The Well Being of Your Pet

In today's society, dogs and cats are considered a part of the family and loved and cared for just like another human being. However, there are certain rules and regulations that must be adhered to regarding pets. These rules and regulations are intended not only for the health and welfare of the public, but also for the health and welfare of the pet. When you acquire a pet, it is important to make sure they receive the necessary inoculations and maintain good pet ethics. Most importantly, for the safety of your pet, please do not allow your pet to run at large. This is a violation of City ordinance as well.

The month of May is the time to renew your dog and eat tags. Dog tags are renewed on an annual basis and eat tags on a bi-annual basis. Contact the Finance Department at 251-3131 for further information. Also, did you know that City ordinance states that all persons shall be limited to ownership of three eats per residence and two dogs per residence. If you are unsure of the City's regulations regarding pets, please contact the Police Department at 251-3113 or the City Clerk's Office at 251-3100.

Hydrant Flushing

The City will be flushing and testing Fire Hydrants the week of May 23. Residents may experience some discoloration of their water. However, the water will continue to be safe to



drink. Residents may want to avoid doing laundry during this time to avoid discoloration of clothing. If you must do laundry, make sure you check the water before you put in the clothes. Despite the inconvenience of the discolored water, it is necessary to flush fire hydrants to remove any sediment that might have settled in the water mains and to ensure the fire hydrants remain in good work order. If you have any questions, please call the Water Division at 251-3133.

House Numbers A Must

All businesses and residences are required to display street numbers which can be easily read from the street. Numbers should be at least 4" high with a minimum stroke width of 0.5 inch. Address numbers shall be Arabic numerals or alphabet letters and shall contrast with the background. Bushes which block the number should be trimmed, and any numbers which have faded should be replaced.

City ordinance requires that numbers be installed to make it easier for emergency crews to find a house. Anyone who has not installed the numbers as required could face a fine. But more importantly, not installing street numbers could delay the response time from fire and police when responding to an emergency. The potential damage which could result outweighs the time it takes to make sure the numbers are visible from the street.

HONORED AT COUNCIL MEETING



David George & Mayor Ayres



E WRCHS Offer Girls Baskethall Team and Coach Rick Dwiggins







Little Paint Club members recognized by Mayor Agres and the City Council Pictured with Mayor Agres are. Kati Smith, Entily Best, and Alike Cory

Officer Retires

David George retired on February 18, after 27 years as a Police Officer. The City Council recognized David at the February 22 Council meeting in appreciation for his dedicated and devoted service to the citizens of Wood River. The City congratulates David and wishes him a happy retirement.

Girls Basketball Recognized

The Varsity Oiler Girls Buskethall Team attended the February 22 City Connecti meeting to be recognized for an outstanding year. They not only took 2rd Place at the Waterloo Tournament and 3rd Place at the Carrollton Tournament, but broke a School Record for the Most Wins in a Season with a 21 & 6 Record.

Atembers of the team: hmily Best, Kari Smith, Heather Angarano, Jamie Bowermaster, Maggie Graf, Frances Eiter, Jessy Hewitt, Brittany Randolph, Paige Williams, Jomi McCaslin, Brandy Masello, Jessie Dwiggins and Ochra Spala. Hend couch was Rick Dwiggins with Dale Emerick and Steve Tyler assisting. The Gigwishes the Girls the best of luck next year.

1,000 Point Club Rewarded

Three Oiler Basketball players were honored at a City Council meeting for having one thing in common—JOIMING TIB. 1.0001POINT CLUB.

Mike scored a total of 1,171 points in his four years with the Oiler Busketball team placing 64 on the All Time List. Early became the School's All Time Lead Scorer and breaking the 2001 Scoring Record, She scored 1,697 points in her four years, scoring 508 points in a single season. Kati scored 1,038 points in ber four years placing third on the Girls' Scoring List. The City is extremely proud of these athletes and wish them the best of luck.

Special Recognition & Congnats to:

Cleary's Shoes & Boots for winning the November Small Business of the Month Award from the Small Business Council of the Growth Association of Southwestern Illinois. Tim & Barbara Cleary, owners, moved their business to a bigger location at 48 F. I erguson. They have custom made shoes and are authorized to fiff prescriptions for people who are having foot maladies. Tim began working in the shoe business when he was 13 and has enjoyed fitting a customer to a shoe every since. The store caters to all ages and also carries socks, arch supports, polish and handbags.

Budget Signs & Plaques for winning the December Small Business of the Month Award. Parti and Steve Lash took over ownership of Budget Signs nearly two years ago. The company has been in business for 22 years and located at 333 E. Edwardsville the past 11 years. They make all kinds of stuff, including magnetic signs, plaques trophies, awards, banners. T-shirts and caps. Customers include businesses churches and individuals. Not only is Budget a family business, but its seven employees are considered family.

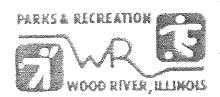
Bruce Murphy for being nominated for "The Outstanding Operator of the Year" award. Bruce was one of four nominated statewide. The purpose of the annual award is to emphasize the relationship between adequate wastewater treatment and clean receiving waters and to give public recognition and encouragement to those operators who have operated their wastewater treatment facilities in an especially effective manner. Bruce has managed the City's Wastewater Treatment Plant Facility since 1985 and the City is extremely proud of Bruce and Veolia Water North America.

Charles & Jeanette James Day

May 7 & 8, 2005 has been proclaimed Charles & Jeanette James Day in the City of Wood River in honor of their outstanding volunteer leadership in the founding of the Wood River Museum and Camp DuBois.

Charles & Jeonette's devotion and leadership of many thousands of hours of volunteer work have contributed to the accomplishment of many historical places in Wood River. They were founders and charter members of the Wood River Museum, instrumental in upgrading the Vaughn Hill Cemetery and Charles worked four years or more on Camp DuBois. He was solely responsible for obtaining donations and raising the funds to build Camp DuBois.

Volunteers inspire by example and so it is only fitting that Wood River citizens honor those that donated their time, energy, and strength to make our community a more productive place to live and work.



The Recreation Department will be holding the following events this spring-summer. For more information, please call 251-3130, Monday through Friday, 8 n.m. to moon and 1-5 n.m.

 Summer Gymnastic Camp: Tunibling and gymnastics are offered for pre-school through 3r. High children, instruction on bulance beam, uneven bars and coult, as well as unabling techniques. The Summer Gynnastic Camp classes will run August i.—26, starting at 4 p.m.

Turabling Classes, Mondays August 1, 8-15,22

4-4:30 p.m. Pre-Schoof \$15.00 4:30-5:15 p.m. Beginner \$20.00 5:15-6:15 p.m. Adv. Beginner \$25.00 6:15-7:50 p.m. Intermediate \$30.00

Gymnastics Classes, Thursday August 4, 11, 18, 25

4:30-5:00 p.m. Pre-School \$20,00 5:00-5:45 p.m. Beginner \$22,00 5:45-6:45 p.m. Adv. Beginner \$25,00 6:48-8 p.m. Intermediate \$36,00



Combined Classes: Funbling & Gymnustics \$5.00 off pre-participant.

- Youth Instructional and T-Bull: Registration is now being taken for summer youth Instructional League for 5, 6 & 7 year olds and A T-Bull League for 6 & 7 year olds. Registration is \$25,00 and includes a t-shirt. Registration ends Friday. May 7.
- Youth League Parade: The annual Youth League Parade will be held. Saturday, June 4, 2005 at 10 a.m. This parade consists of all youth league baseball/softball participants. Tri-City and Wood River Instructional League. The parade will end at Emerick Sports Complex, on 64 St., where youth league games will be held to kick off the season.
- Summer Day Camp: The Recreation Department will once again have a summer

day camp for children ages 5 (by 6/1/05) thru 11 years of age. Day camp is held Mondays. Wednesdays, and Fridays 9 n.m. - 2 p.m., ione 13 thru July 22, PRE-REGISTRATION IS REQUIRED IN PERSON. A limit of 50 children will be accepted. Registration runs May 2 - May 77

- Cheerleading Camp: A cheerleading camp will be offered July 18-22 from 9-11 a.m. at the Roundhouse. This camp will involve sideline cheers, a floor cheer and assistance with mounts, 4th thru 8th grade students are invited. The registration deadline is May 27th. The fee is \$25.00 for the camp.
- Jr. Cheerleading Camp: K-3rd grade stodents are invited to attend a cheerleading camp where they will be introduced to the fun of cheerleading. The camp will be held July 25-29 from 9-11 a.m. at the Roundhouse. The fee for the camp is \$25,00. Registration deadline is May 27°.
- Pom Pom Camp: The Wood River Recreation Department is offering a camp to introduce and instruct students in Poms.
 The camp will be held Angust 1-5, from 9-1 hairs, at the Roundhouse, Registration runs May 2-37. The Fee is \$25,00 for the camp.
- Volleybull Camp: Sei, Spike, Block, Learn the fundamentals. The Wood River Recrention Department is offering two Volleybull Camps at the E.A.W.R. High School Auditorian Gym. Fee - \$25.00 per Child. Ages Group - Children 12 & Under, Children 14 & Uniter, Children 18 & Under, Registration runs May 2-27, Dates: 773.4
- Soccer Camp: The Wood River Recreation and SweetSpot Soccer Academy will be

conducting a soccer camp for hoys and girls ages 5-17. Each participant will receive a soccer ball and a T-shirt. The dates of the camp will be August 8-12 at Wood River Soccer Park, Time: 6 – 7/15 p.m. Registration deadline; July 21, Cost S45.00 per shift!

Tri-City Specer: East Alton.
Roxana, and Wood River have joined together once again to form a specer league. Children ages 5-13 are invited to participate. The registration fee is \$25.00 and includes a 1-shirt. Games begin in September on Saturday mornings and some weeknights. Which for registration in July

weeknights. Which for registration in July & August.

Concerts in the Park The Municipal Band

- Concerts in the Park The Municipal Band performs in Central Park on Wednesday evenings at 8 p.m. throughout the summer menths of Jane and July.
- Imperial Swing Dance Lessons Leslie Williams "The Swing Kid" holds Imperial Swing Dance Lessons on Wednesday Evenings starting at 6:30 p.m. at the Roundhouse, Imperial Swing is the St. Louis version of that Coast Swing, a smoother version of the old Interbug, los more information, give Leslie a call at 254-1482.

Parks & Recreation Upcoming Fall Events

- Gymnastics Tumbling Registration begins in August.
- Adult Softball Registration runs July 5 -August 5.
- Co-Fd Volleyball Registration runs from Sept. 26 - Oct. 29.

Heritage Council News

- Visit the Elvis Presley Exhibit at the Wood River Museum, Jerry Fischer's collection of Elvis memorabilia will be on display until May 14.
- 6th Annual Camp Du Bois Rendezvous, May 7 & 8 at the camp site from 10 a.m. -4 p.m.
- Visitors Center now offers genealogy department. We are collecting information on early Wood River families to be put in computer data base. A collection of obituaries, old death records, marriage licenses and family linages to assist in family scarcines is also available.
- Vaugha Hill Cemeters has been declared a historic landmark by the City.
- Remember the Historic Wedding Chapet for small weddings or other ceremonies. Call 254-6221 for information.
- Visit the heritage council web site www.wrheritagecouncil/arpiasanet.com

HELPWANTED: Several of our volumeers can no longer serve as greeters or guides of the Museum due to health reasons. If you would be interested in volunteering one day a month for three hours to keep the museum open, please call Judy Price at 254-4906. It's fin to talk with visitors about the good old days.

Belk Park Golf Counse News



Spring is here and the Belk Park Golf Course is open and ready for you to play. Belk Park is one of the finest manicipal golf-courses around. The golf-course has multiple tees for your golfing pleasure and plays to a par 72. The golf-course has maniciped zoysia fairways and large bent grass greens. You will be giad to know that for the fourth season in a row, we are holding the line on our rates. We also have many programs available to our patrons during the season:

- 1) Senior days Mon.-Thurs.
- Couples nite every Friday June thru-August
- Junior Golf Academy, first 2 weeks of June.
- 4) Two Man Scramble July 16-17
- 5) Metro Last Amateur August 20-20.
- 6) Gol Clessons available from our two PGA Professionals
- Season Passes available along with 20-play cards
- Discounts on pro shop merchandise.

Are you hooking for a benuifed setting for an autdoor wedding? We have just the place; a 40-foot gazebo with a pond and waterfall surrounded by a meticulously landscaped contyard. After the wedding you can host your reception in our elegant banquet facility overlooking the golf course which can seat 25-168 people. Our banquet facility is also a great place to hold showers, parties, business meetings or any other function. If you have any questions about our programs or would like to book a golf outing or hanquet, please call our staff at 618-251-3115.

Parks & Recreation Discrimination Complaint Procedure

NOTICE: Wood River Parks & Recreation programs and facilities are available to all citizens regardless of race, color, national origin, sex, age, or disability. Reasonable accommodation may be requested to provide participation in desired programs and activities. If you have a disability condition and swould like more information and support for accessibility of programs and facilities, call 251-3130.

Aquatic Center 2005 Season Opening May 28th

Family Day —June 18: 20-Year Celebration of the Aquatic Center featuring Fun Games · Give-a-ways · Specials from 1-5 p.m. Prices the same as 1985 · · · Pool Admission: \$2.50 (Childian Adult) All Day Slide \$4.00.

Triathfon: The 20th annual Wood River Triathfon, sponsored by the Aquatic Center, is scheduled Saturday, August 13th at 7 a.m. It starts with a swim at the Aquatic Center, followed by a bike ride and run through the streets of Wood River. The race finishes in Central Park near the bandstand. Professional timers are used and trophies are awarded to each age group. Volunteers are abways needed, if interested please call Gregg at the Recreation Department at 251-3130.

Wood River Dash & Splash: Join your kids at a fun filled family event. Wood River Parks & Recreation is co-sponsoring the Dash and Splash at Wood River Aquatic Center on Sunday, July 31. The dash is a one-mile run and the splash follows as an open swim at the Aquatic Center, Registration is from 3-5 p.m. Fee: \$5 per child under 18 & \$8 per adult. Call 251-3130 for more information.

Season Pass Pool Special

The Aquatic Center is offering special rates on season passes, 2005 Season passes are being sold at promotional prices. Don't miss out on this great opportunity. You may purchase your pass at the Roundhouse Recreation Center during regular business homs. The following prices are good thru May 27, 2005.

	Non-Resident	Resident
Individual	\$55.00	\$85.00
Semon(60) rs 1	\$40.(X)	
Camily (of 3)	\$125.00	\$185.00
Additional Members		
Regular prices for season pe	iss after May 27:	

	Non-Resident	Resident
Individual		\$90,00
Senior (60)yrs +)		\$80,00
Family (of 3)		\$205,00
Additional Members	\$30,00	

Special Rental Rates

Party times: 9-10:30 a.m., 7:30-9 p.m., 9:30-11 p.m. Pool and Swim parties are available. Please call Toni at 251-3130 for reservations today.

Rental Hours: Time slot I: 7:30-9 p.m.; Time slot II: 9:30-14 p.m.; Time slot III 9 a.m., 10:30 a.m. (when permissible). Slide Remal: \$150, Pool Rental: \$150, Complex Rental: \$250 Double time slot rental: 7:30-14 p.m. Slide remal \$250, pool rental \$250, double complex rental \$450.

Learn to Swim Program

The Aquatic Center conducts a complete series of public swimming lessons following the American Red Cross Aquatics Program. Students successfully completing a swim course will receive Red Cross Certification Card. Children must be four years of age to curoll. All sessions meet Monday thru Friday. There will be three sessions this summer beginning in June. Call for exact dates and times 251-3130.

- Water Bubles: This program is for children two and three years of age, Parents must accompany their child in class, Fee \$20.00
- Adult Learn to Swim Program: This program is for adults wanting to learn to swim
 or just improve their skills. Times are to be arranged. Fee \$25.00.
- Swim Team: This program is for children from ages 10-17 that want to compete in swim competition. Swim team will start Monday June 6th and will run from Monday Friday at 7a.m. Fee - \$75.00

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CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

SUBMITTAL OF RECORDS FOR THE LAST FOUR YEARS DEMONSTRATING COMPLIANCE WITH THE NEED TO EVALUATE THE EFFICACY OF CSO CONTROLS TO PREVENT VIOLATIONS OF WATER QUALITY STANDARDS

Prepared By
HORNER & SHIFRIN, INC.

JANUARY 2006

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

ITEM NO. 8.A)

Document(s) Submitted:

Submittal Of Records For The Last Four Years Demonstrating Compliance With The Need To Evaluate The Efficacy Of CSO

Controls To Prevent Violations Of Water Quality Standards

Date Document Submitted:

February 2, 2006

Document Certification:

On behalf of the City of Wood River, Illinois, I hereby certify that all written statements contained in this document, which is submitted to USEPA pursuant to the above-referenced Administrative Order, are true and accurate to the best of my knowledge and belief. I also hereby stipulate that should I find, at any time subsequent to the submittal of this document to USEPA, that any of the written statements contained in this document are false or incorrect, I shall so notify USEPA – Region V.

Certification By: Stephen J. Palen, P.E.

Signature:

Title:

Director of Public Services

City of Wood River, Illinois

Date:

212106

SUBMITTAL OF RECORDS FOR THE LAST FOUR YEARS DEMONSTRATING COMPLIANCE WITH THE NEED TO EVALUATE THE EFFICACY OF CSO CONTROLS TO PREVENT VIOLATIONS OF WATER QUALITY STANDARDS

TABLE OF CONTENTS

Section	Description	<u>Pages</u>
1	Purpose and Scope of Submittal	1
11	Description of Current Collection of Records	2
Attachment	Four Years of Records Pertaining to NPDES Permit Special Condition 13, Item 11.	
Attachment	Four Years of Records Pertaining to NPDES Permit Final Effluent Limitations. Monitoring, and Reporting	

SUBMITTAL OF RECORDS FOR THE LAST FOUR YEARS **DEMONSTRATING COMPLIANCE WITH** THE NEED TO EVALUATE THE EFFICACY OF CSO CONTROLS TO PREVENT VIOLATIONS OF WATER QUALITY STANDARDS

I. PURPOSE AND SCOPE OF SUBMITTAL

Α. **Purpose**

The primary purpose of this submittal of the last four years of records demonstrating compliance with the need to evaluate the efficacy of CSO controls to prevent violations of water quality standards is to fulfill a requirement stated under Item 8.A) of an Administrative Order issued by USEPA Region V pursuant to Sections 308 and 309(a) of the Clean Water Act (Docket No. V-W-05-AO-16) and received by the City of Wood River on October 6, 2005.

Specifically, Item 8.A) of the above-referenced Administrative Order requires that the City shall submit to USEPA the records for the last four years demonstrating compliance with the City's modified NPDES Permit's Special Condition 13, Item 6i, Item 10, and Item14, which collectively deal with the need for the City to evaluate the efficacy of CSO controls and develop a plan to prevent CSOs from creating, or exacerbating violations of water quality standards.

B. Scope

The above-described specific requirement essentially defines the scope of the necessary submittal, via reference to Special Condition 13, Paragraphs 6.i., 10. and 14. of the City's modified NPDES Permit.

Special Condition 13 of the City's NPDES Permit, as modified July 25, 2002 contains four important elements of compliance for the City of Wood River's combined sewer system:

Paragraph 6.i.: requires monitoring to characterize impacts and efficiency of CSO controls. (compliance with this Item shall be met through the requirements imposed by Paragraph 10 and 11 of this Special Condition).

Paragraph 10.: requires that discharges from the City's outfall shall not cause or contribute to violations of applicable water quality standards, or cause or contribute to use impairment in the receiving waters. IEPA review of Wood River's combined sewer system in 2002 found that the City's outfall did not have a high reasonable potential to cause or contribute to violations of applicable water quality standards or use impairment. Should information causing the IEPA to reverse this conclusion become available, the Permittee shall develop a plan for abating such use impairment and bringing the flows from its CSO into compliance with applicable standards.

> It should be noted that, to date, no such information which would cause IEPA to reverse the above stated conclusion has arisen.

Paragraph 11.: summarizes monitoring requirements of CSO events.

I. PURPOSE AND SCOPE OF SUBMITTAL (continued)

Paragraph 14.: summarizes compliance dates by which submittals to IEPA were due.

II. DESCRIPTION OF CURRENT COLLECTION OF RECORDS

As previously indicated, Item 8.A) of the Administrative Order required the City of Wood River to submit its records from the last four years demonstrating compliance with Special Condition 13, Item 6i., Item 10. and Item 14 (with requirements of Item 6i. met through Item 10. and Item 11).

As previously stated, Paragraph 10 under Special Condition 13 states that IEPA review of Wood River's combined sewer system in 2002 found that the City's outfall did not have a high reasonable potential to cause or contribute to violations of applicable water quality standards or use impairment. Thus, IEPA did not require the City of Wood River to develop a Long Term Control Plan, which would require a post-construction compliance monitoring program, unless information causing the IEPA to reverse this conclusion became available (which it has not).

Item 11. requires the Permittee to monitor the frequency of discharge and estimate the duration of each discharge from the outfall. Estimates of storm duration and total rainfall shall be provided for each storm event. The City has kept these records, and the last four years worth of information of this nature can be found in the attachment to this response.

In addition to the records kept for compliance of the City's NPDES permit Special Condition 13, Item 11, BOD, suspended solids, and fecal coliform data are collected on a 24 hour basis during CSO events to comply with the City's NPDES permit's final effluent limitations, monitoring, and reporting requirement for the combined sewer overflow. The last four years worth of these records, excluding the records prior to the issuing of the modified NPDES permit in July of 2002, are also attached for USEPA review. The records prior to the issuing of the modified NPDES permit in July of 2002 are excluded due to the sample location being such that both wastewater treatment plant effluent and CSO discharges were analyzed in a collective sample. The modified NPDES permit required a second sampling point upstream of the confluence of the wastewater treatment plant effluent and any CSO discharges in order to get more accurate information concerning the characteristics of the CSO discharges.

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EPA Form 3320-1 (Rev. 6-95)Previous editions may be used.

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	L 62095			Γ	MO	NITORII	VG P	ERIOD			MAJ	OR		Appro	oval e	(pires 0	3-31-5	98
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EPA Form 3320-1 (Rev. Previous editions may be used.

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LOCATION WOOD RIVER, IL 620	95	·	FROM	02	12		то	02	12	31	*	** N	eld Ol	CHARGE		***	
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EPA Form 3320-1 (Re 5)Previous editions may be used.

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P.O. BOX 300					MIT NUMBE	R		BCHARGE NUM	BER	F - FINAL				40-0004.		
WOOD RIVER,	L 62095			[MOI	NITORING F	FRIOD			MAJOR		Appro	oval e	kpires 05	-31-98	
CHLITY WOOD RIVER STP, C	ITY OF			YEAR	MO	DAY	YEAR	МО	DAY	CSO		OCR	0298	-	-	
CATION WOOD RIVER, IL 620	95		FROM	03	01	01 ^{TO}	03	01	31			HARGE	X	***		
FN:		····			(22-23) ((28-29) (3		NOTE: Read in	struc	flons befo	ore co			m.
PARAMETER		(3 Card Only) Q (46-53)	WANTITY OR LOA (54-61			(4 Card Only (38-4.) 5)	QUANTITY (46-		CENTRATION (54-61)			NO.	FREQUENC	SAMI	
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ECIEVING WATER: MISSISSOWS ESTIMATED DUE TO	SIPPI RIVER.	NUMBE	R OF DAY	'S OF C	DISCHAF	RGE: 0						BC				

'A Form 3320-1 (Rev. 8 revious aditions may be used.

PERMITTEE NAME SSS (Include faifferent) AME WOG WERSTP, CIT	TY OF				AL POLIJ SCHAR (2-16)			ON SYSTEM (EPORT (17-15	(DMR)	CSO (OVER 4.0	8 MGD IN 84	" INT	R)	
DORESS 501 W. FERGUSON AV	/E.	<u> </u>		IL0031			}	A01		(SUBR 06)	Form			2345
P.O. BOX 300			_ L	PEA	MIT NUMBER		L_	DISCHARGE N	UMBER	F - FINAL			40-0004.	
WOOD RIVER, IL					MON	ITORING I	PERIOL)		MAJOR			cpires 05-3	1-98
ACILITY WOOD RIVER STP, CI			FROM	YEAR	MO	DAY	YEAR	MO	DAY	CSO	OCR	1298	***	
OCATION WOOD RIVER, IL 6209	10		FAUM	(20-21)	(22-23) (2	01 10	(26-27)	(28-29)	28	*** NO E	DISCHARGE structions before	re co	4	is form.
PARAMETER	$\overline{}$		JANTITY OR LOA	ADINO	(22-23) [2	(4 Card Only	v)	QUANT	ITY OR CON	CENTRATION		NO.	FREQUENCY	SAMPLE
(32-37)	\sim	(46-53)	(54-61	1		(38-4		1	46-53)	(54-61)		EX	OF AVALYSIS	TYPE
200 5 0 1 2		AVERAGE	MAXIMUI	<u> </u>	UNITS	MINIM	IUN	^\	/ERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
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·	THE P	OSSIBILITY OF FINE AND IM. C. 89 1319. (Penalties u	PRISONMENT. SE	EE 18 U.S.C	st 1001 AND	up to	SI	GNATURE O	FPRINCIPAL	LACOUNTE	618 254-	·		3 07
TYPED OR PRINTED	\$10,0	90 and or miximum imp	risonment of be	itween 6 m	onths and 3	years.)	<u>L</u>	OFFICER O	R AUTHORIZ	ED AGENT	AREA NUM	BER	YEAR	YAQ ON
RECIEVING WATER: MISSISSI LOWS ESTIMATED DUE TO N PA Form 3320-1 (Rev. 8-5) rous edition	PPI RIVER.	NUMBE		TTER	REGARE			REQUE	NCY O	F ANALYSIS VI	OLATIONS.	ВС	PAGE 1	J-1

CSO (OVER 4.8 MGD IN 84" INTR) RIVER STP. CITY OF (2-16) (17-19) NAME Form Approved. 12345 IL0031852 A01 (SUBR 06) 501 W. FERGUSON AVE. ADDRESS PERMIT NUMBER DISCHARGE NUMBER F - FINAL OMB No. 2040-0004. P.O. BOX 300 MAJOR WOOD RIVER. 62095 Approval expires 05-31-98 MONITORING PERIOD CSO OCR 0298 FACILITY WOOD RIVER STP. CITY OF YEAR DAY YEAR MO DAY MO LOCATION WOOD RIVER, IL 62095 PROM *** NO DISCHARGE 表大会 03 03 03 01 03 31 NOTE: Read instructions before completing this form. (26-27) (28-29) (30-31) (20-21) (22-23) (24-25) ATTN: f 3 Card Only) QUANTITY OR LOADING QUANTITY OR CONCENTRATION (4 Card Only) FREQUENCY **BAMPLE** PARAMETER (54-61) (46-53) (54-61) (38-45) (46-53) EΧ TYPE ANALYSIS (32-37) **AVERAGE** MAXIMUM UNITS MINIMUM AVERAGE MUMIXAM UNITS (69.70) (62-63) (64-68) BOD. 5-DAY SAMPLE 19) 375 GR Ü **** **** **** 152 **** MEASUREMENT (20 DEG. C) *** 00310 1 0 0 REPORT PERMIT *** *** **火火火火火火** **** DLY When DIS GRAB **EFFLUENT GROSS VALUE** REQUIREMENT MO, AVG MG/L SOLIDS, TOTAL SAMPLE 19) 378 GR 0 219 **** **** **** **** MEASUREMENT SUSPENDED 00530 1 0 0 *** REPORT PERMIT GRAS **** **** **** *** DLY When DIS **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG COLIFORM, FECAL (13)GR SAMPLE 495 *** 3400000 **** *** *** MEABUREMENT GENERAL *** 74055 1 0 1 DAILY WH # / 100 ML PERMIT **** **** *** 大大大大大大 GRAB **EFFLUENT GROSS VALUE** RECUIREMENT ***** DISCHR FLOW, TOTAL SAMPLE 3R) 10.00 n 安安安安安安 **** **** 女女女女女女 MEASUREMENT *** 82220 1 0 0 REPORT PERMIT **** DAILY *** CONTIN 表表表表表表 ... *** **EFFLUENT GROSS VALUE** REQUIREMENT MO. TOTAL M GAL SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT with the company PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT " REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED DATE NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE, I AM AWARE THAT THERE ARE **PROJECT MANAGER** SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. 10 1001 AND 04 618 254-4074 03 11 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. so 1310. (Penalties under these statutes may include fines up to AREA NUMBER TYPED OR PRINTED \$10,000 and or maximum imprisorment of between 6 months and 5 years.) OFFICER OR AUTHORIZED AGENT YEAR MO DAY COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) RECIEVING WATER: MISSISSIPPI RIVER. NUMBER OF DAYS OF DISCHARGE: 4 FLOWS ESTIMATED DUE TO NO FLOW METER.

(REPLACES EPA FORM T-40 VALUE MAY NOT BE USED.)

NATIONAL PC

DISCHA

DISCHARGE ELIMINATION SYSTEM (NPDES) MONITORING REPORT (DMR)

PERMITTEE NA

Facility Name/1

DRESS (Include n if different)

EPA Form 3320-1 448-95)Previous editions may be used.

ACORESS (Include ation if different) WOOD RIVER STP, CITY OF NATIONAL ANT DISCHARGE ELIMINATION SYSTEM INPOES) PERMITTEE DISC. AGE MONITORING REPORT (DMR) Facility Nat. (17-19) CSO (OVER 4.8 MGD IN 84" INTR) (2-16) NAME IL0031852 A01 (SUBR 06) Form Approved. 12345 501 W. FERGUSON AVE. ADDRESS PERMIT NUMBER DESCRIARGE NUMBER F - FINAL P.O. BOX 300 OMB No. 2040-0004. WOOD RIVER. IL. 62095 MAJOR Approval expires 05-31-98 MONITORING PERIOD CSO WOOD RIVER STP. CITY OF **EACILITY** OCR 0298 YEAR DAY YEAR MO DAY WOOD RIVER, IL 62095 *** LOCATION FROM TO 30 NO DISCHARGE 03 04 01 03 04 NOTE: Read instructions before completing this form. (28-29) (30-31) (22-23) (24-25) (26-27) ATTN: (20-21) QUANTITY OR CONCENTRATION (4 Card Only) 3 Card Only QUANTITY OR LOADING PREQUENCY SAMPLE PARAMETER (46.53) (54-61) (38.45 (46-53) (54-61) ĒΧ ANALYSIS TYPE (32-37) AVERAGE MAXIMUM UNITS MINIMUM AVERAGE MUMIXAM UNITS 62-63) (64-68) (69-70) BOD, 5-DAY SAMPLE (19) ĠR 78 0 **** **** **** *** MEASUREMENT (20 DEG, C) 大大大大 00310 1 0 0 REPORT PERMIT **** *** **** *** DLY When DIS GRAS EFFLUENT GROSS VALUE REQUIREMENT MG/L MO. AVG SOLIDS, TOTAL SAMPLE (19) 375 GR 0 238 *** **** **** **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT *** ***** DLY When DIS GRAB *** **** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO. AVG COLIFORM, FECAL SAMPLE (13)5 **** *** **** ***** 827500 MEASUREMENT GENERAL *** DAILY WH 74055 1 0 1 #/100 ML PERMIT **** *** **** **** GRAB DISCHR EFFLUENT GROSS VALUE REQUIREMENT *** 375 FLOW, TOTAL 3R) SAMPLE £S **** 18.00 **** **** **** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT **** **** **** **** DAILY CONTIN EFFLUENT GROSS VALUE REQUIREMENT M GAL MO. TOTAL SAMPLE. MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT ५ सम्ब REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE INFORMATION BUBINITIED HEREIN AND BASED ON MY MOUTRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING PROJECT MANAGER THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. .. 1001 AND 03 07 618 254-4074 05 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. en 1318. (Penalties under these statules may include fines up to TYPED OR PRINTED \$10,000 and or maximum imprisonment of between 6 months and 5 years.) OFFICER OR AUTHORIZED AGENT NUMBER YEAR MO DAY COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) RECIEVING WATER: MISSISSIPPI RIVER. NUMBER OF DAYS OF DISCHARGE: 5 BC

FLOWS ESTIMATED DUE TO NO FLOW METER.



ORESS (Include n if different) Facility Name/ DISCH. MONITORING REPORT (DMR) CSO (OVER 4.8 MGD IN 84" INTR) RIVER STP. CITY OF (17-19) (2-16) NAME (SUBR 06) 12345 Form Approved. IL0031852 A01 **501 W. FERGUSON AVE.** ADDRESS PERMIT NUMBER F - FINAL DISCHARGE NUMBER OMB No. 2040-0004. P.O. BOX 300 MAJOR Approval expires 05-31-98 WOOD RIVER. 62095 MONITORING PERIOD WOOD RIVER STP, CITY OF CSO **OCR 0298 FACILITY** YEAR MO DAY YEAR MO DAY WOOD RIVER, IL 62095 FROM TO NO DISCHARGE LOCATION 03 05 01 03 05 31 NOTE: Read instructions before completing this form. (30-31) ATTN: (22-23) (24-25) (26-27) (28-29) (20-21) (3 Card Only) QUANTITY OR LOADING QUANTITY OR CONCENTRATION (4 Card Only) FREQUENCY SAMPLE PARAMETER NO. (46-53) (34-61) (38-45) (46-55) (34-61) EX TYPE ANALYSIS (32-37) AVERAGE MAXIMUM UNITS MINIMUM AVERAGE MAXIMUM UNITS (62-63) 164-681 (69-70) BOD, 5-DAY **SAMPLE** 19) GR **** **** 75 **** **** MEASUREMENT (20 DEG, C) 00310 1 0 0 *** REPORT PERMIT . **** DLY When DIS GRAB *** *** *** EFFLUENT GROSS VALUE REQUIREMENT MO AVG MG/L SOLIDS, TOTAL SAMPLE (19) 375 GR **** **** **** 265 **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT DLY When DIS GRAS **** **** *** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO. AVG 375 COLIFORM, FECAL (13)SAMPLE **** **** **** 2500000 安安安安安安 MEASUREMENT **GENERAL** *** DAILY WH 74055 1 0 1 **** # / 100 ML PERMIT ***** ***** GRAB *** **EFFLUENT GROSS VALUE** DISCHR REQUIREMENT *** 375 FLOW. TOTAL ES SAMPLE 3R) 0 **** 21.00 *** 大大大大大大 **** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT **** *** **** *** DAILY CONTIN **EFFLUENT GROSS VALUE** RECUIREMENT M GAL MO. TOTAL SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED DATE NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY HIGHRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR **BRUCE MURPHY** OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE, 1 AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING PROJECT MANAGER THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 18 U.S.C. 99 1001 AND 254-4074 03 06 10 618 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. no 1318. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.) AREA TYPED OR PRINTED OFFICER OR AUTHORIZED AGENT NUMBER YEAR MO DAY COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) NUMBER OF DAYS OF DISCHARGE: 4 RECIEVING WATER: MISSISSIPPI RIVER. FLOWS ESTIMATED DUE TO NO FLOW METER.

AY NOT BE USED.

(REPLACES EPA FORM T-40 WHO

NATIONAL PC

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EPA Form 3320-1 (R 29 95)Previous editions may be used.

* DISCHARGE ELIMINATION SYSTEM (NPDES)

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NAME WE RIVER STP, C ADDRESS 501 W. FERGUSON A		<u> </u>	_	IL003				A01		(SUBR 06)	OW O.	Form		-	12345	5
P.O. BOX 300	H Just	······································	- -		ERMIT NUMBE	ER .		HICHARGE		F - FINAL				40-0004.	·	
WOOD RIVER.	6209	5								MAJOR				xpires 05-	31-98	
FACILITY WOOD RIVER STP, C				YEAR		NITORING I	YEAR	МО		CSO		OCR (
LOCATION WOOD RIVER, IL 620			FROM		06	01 10	03	06	30		DISCH	1		***		
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i 🔏	ons may be used.					ICI NOT B	E USED.)		* - · * · · · · · · · · · · · · · · · · 		·			PAGE	Ĵ <u>F</u>	1

PERMITTEE NAI RESS (Include Facility Name/L n if different) NAME WO RIVER STP, C	ITY OF			NATION ICI	ALPC SCHA (2-16)	I DISCHARGE MONITOR	ELIMINATI ING REI	ON SYSTEM (NPDES) PORT (DMR) (17-19)	CSO (OVER 4.	MGD IN 84	ניי ואוז	יים	
ADDRESS 501 W. FERGUSON A				L0031			A		(SUBR 06)		Аррг	· .	12345
P.O. BOX 300		<u>, , , , , , , , , , , , , , , , , , , </u>			RMIT NUMBE	R			F - FINAL	OMB	No. 20	40-0004.	
WOOD RIVER,	L 62095				MON	IITORING P	EDIOD		MAJOR	Appr	oval e	xpires 05-3	1-98
FACILITY WOOD RIVER STP. C		1		YEAR	MO	DAY	YEAR	MO DAY	CSO	OCR	0298	_	
LOCATION WOOD RIVER, IL 620			FROM	03	07	01 10	03	07 31		DISCHARGE		***	_
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PARAMETER		(3 Card Only) Q1 (46-33)	UANTITY OR LO [54-6]			(4 Card Only (38-4.		QUANTITY OR CON	CENTRATION (54-61)		NO.	FREQUENCY	SAMPLE
(32-37)		AVERAGE	MAXIMU	IM	UNITS	MINIM	UM	AVERAGE	MAXIMUM	UNITS	EX (62-63)	ANALYSIS (64-68)	TYPE (69-70)
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COMMENT AND EXPLANATION OF ANY VIOLA	TIONS (Reference all att	achments here)						** · · · · · · · · · · · · · · · · · ·		<u> </u>		 	
RECIEVING WATER: MISSISS			R OF DAY	S OF I	DISCHAF	RGE: 2				BC		C()P'

(REPLACES EPA FORM T-40 WALL MAY NOT BE USED.)

35)Previous editions may be used.

ORESS (Include in if different) PERMITTEE NA NATIONAL PC DISCHARGE ELIMINATION SYSTEM (NPDES) Facility Name/s I MONITORING REPORT (DMR) DISCH RIVER STP, CITY OF CSO (OVER 4.8 MGD IN 84" INTR) (2-16) **601 W. FERGUSON AVE.** IL0031852 A01 (SUBR 06) Form Approved. 12345 ADDRESS PERMIT NUMBER F - FINAL P.O. BOX 300 DISCHARGE NUMBER OMB No. 2040-0004. MAJOR WOOD RIVER. 62095 Approval expires 05-31-98 MONITORING PERIOD CSO **FACILITY** WOOD RIVER STP, CITY OF **OCR 0298** YEAR YEAR MO DAY MO DAY LOCATION WOOD RIVER, IL 62095 NO DISCHARGE Х FROM 03 08 01 TO 03 31 80 NOTE: Read instructions before completing this form. ATTN: (20-21) (22-23) (24-25) (26-27) (28-29) (30-31) 3 Card Only) (46-53) QUANTITY OR LOADING (4 Card Only) QUANTITY OR CONCENTRATION SAMPLE PARAMETER (54-61) 138.45 (46-53) (34-61) EX TYPE ANALYSIE (32-37) **AVERAGE** MAXIMUM UNITS MINIMUM AVERAGE MAXIMUM UNITS 62-63) (64-68) (69-70) BOD, 5-DAY SAMPLE (19) 0 **** **** *** **** MEASUREMENT (20 DEG, C) 00310 1 0 0 安安安安 REPORT PERMIT DLY When DIS GRAB **** *** *** **** EFFLUENT GROSS VALUE REQUIREMENT MO. AVG MG/L SOLIDS, TOTAL (19) GR SAMPLE 375 **** **** **** **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT DLY When DIS GRAB *** *** **** **** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO. AVG COLIFORM, FECAL SAMPLE (13) GR 0 **** *** **** **** MEASUREMENT GENERAL *** 74055 1 0 1 DAILY WH #/100 ML PERMIT *** GRAB *** **** **** DISCHR EFFLUENT GROSS VALUE REQUIREMENT **** 375 FLOW, TOTAL SAMPLE 3R) Û **** **** **** **** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT *** DAILY CONTIN **** **** *** **EFFLUENT GROSS VALUE** REQUIREMENT M GAL MO. TOTAL SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT : HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION BUBMITTED HEREIN: AND BASED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE, I AM AWARE THAT THERE ARE PROJECT MANAGER SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. ## 1001 AND 618 254-4074 03 09 80 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. 42 1319. (Penalties under these statutes may include fines up to AREA TYPED OR PRINTED OFFICER OR AUTHORIZED AGENT NUMBER YEAR MO DAY \$10,000 and or maximum imprisonment of between 6 months and 5 years.) COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) RECIEVING WATER: MISSISSIPPI RIVER. NUMBER OF DAYS OF DISCHARGE: 0

FLOWS ESTIMATED DUE TO NO FLOW METER.

(REPLACES EPA FORM T-40 WHICH WAS NOT BE USED.)

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PERMITTEE NAME// SS (Include 'ifferent) NATIONAL POLUT/ HARGE ELIMINATION SYSTEM (NPDES) Facility Name/Loca DISCHARC DNITORING REPORT (DMR) WOOL ... ÆR STP, CITY OF CSO (OVER 4.8 MGD IN 84" INTR) (2-16) (17-19)IL0031852 A01 (SUBR 06) Form Approved. 12345 **501 W. FERGUSON AVE** ADDRESS PERMIT NUMBER P.O. BOX 300 DISCHARGE MIMBER F - FINAL OMB No. 2040-0004. WOOD RIVER. 62095 MAJOR Approval expires 05-31-98 MONITORING PERIOD FACILITY WOOD RIVER STP. CITY OF CSO OCR 0298 YEAR MO DAY YEAR MO DAY WOOD RIVER, IL 62095 FROM ** LOCATION 09 ΤQ 09 30 NO DISCHARGE 03 01 03 NOTE: Read instructions before completing this form. ATTN: (26-27) (28-29) (30-31) (20-21) (22-23) (24-25) (3 Card Only) (46-53 QUANTITY OR LOADING (4 Card Only) (38-45) QUANTITY OR CONCENTRATION FREQUENCY BAMPLE PARAMETER (46-53) (54-61) (34-61)TYPE ΕX ANALYSIS (32-37) AVERAGE AVERAGE MAXIMUM UNITS MINIMUM UNITS MAXIMUM 62-63) (64-68) (69-70) BOD, 5-DAY SAMPLE 19) 375 GR 0 56 *** **** *** *** MEASUREMENT (20 DEG, C) 00310 1 0 0 *** REPORT PERMIT **** *** **** *** DLY When DIS GRAB **EFFLUENT GROSS VALUE** REQUIREMENT MO. AVG MG/L SOLIDS, TOTAL (19)SAMPLE n 375 GR **** **** **** 148 **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT **** DLY When DIS GRAB **** *** *** **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO, AVG COLIFORM, FECAL SAMPLE (13)2 **** **** **** **** 590000 MEASUREMENT GENERAL *** DAILY WH 74055 1 0 1 # / 100 ML PERMIT 大大大大大大 **** **** **** GRAB DISCHR **EFFLUENT GROSS VALUE** REQUIREMENT ***** 375 FLOW, TOTAL 3R) SAMPLE ES Ø 18.50 **** **** ***** *** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT DAILY CONTIN *** **** *** *** **EFFLUENT GROSS VALUE** REQUIREMENT M GAL MO, TOTAL SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREN: AND BASED ON MY INDURRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE PROJECT MANAGER SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. 35 1001 AND 07 618 254-4074 03 10 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. 10 1319. Penalties under these statutes may include fines up to AREA TYPED OR PRINTED NUMBER YEAR \$10,000 and or maximum imprisonment of between 6 months and 5 years.) OFFICER OR AUTHORIZED AGENT MO DAY COMMENT AND EXPLANATION OF ANY VIOLATIONS! Reference all attachments here)

RECIEVING WATER: MISSISSIPPI RIVER. FLOWS ESTIMATED DUE TO NO FLOW METER.

NUMBER OF DAYS OF DISCHARGE: 2

OPY

BC

PERMITTEE COORESS (Include Facility Name/L) on if different) ANT DISCHARGE ELIMINATION SYSTEM (NPDES) NATIONAL DISCH SE MONITORING REPORT (DMR) CSO (OVER 4.8 MGD IN 84" INTR WOL J RIVER STP. CITY OF (SUBR 06) Form Approved. 12345 IL0031852 A01 501 W. FERGUSON AVE. ADDRESS PERMIT NUMBER F - FINAL OMB No. 2040-0004. DISCHARGE NUMBER P.O. BOX 300 MAJOR Approval expires 05-31-98 WOOD RIVER. IL 62095 MONITORING PERIOD CSO WOOD RIVER STP, CITY OF OCR 0298 FACILITY YEAR DAY YEAR MO DAY ** LOCATION WOOD RIVER, IL 62095 FROM NO DISCHARGE 03 10 01 TO 03 10 31 NOTE: Read Instructions before completing this form. ATTN: (20-21) (22-23) (24-25) (26-27) (28-29) (30-31) (3 Card Only) QUANTITY OR LOADING (4 Card Only) QUANTITY OR CONCENTRATION FREQUENCY SAMPLE PARAMETER (38-45) (46-53) (34-61) (46-53) (34-61) ΕX TYPE ANALYSIS (32-37) DINITS AVERAGE MAXIMUM UNITS AVERAGE MAXIMUM MUMINIM (62-63) (64-68) (69.70) BOD, 5-DAY 19) GR SAMPLE 375 0 123 **** **** **** **** MEASUREMENT (20 DEG, C) *** 00310 1 0 0 REPORT PERMIT OLY When DIS GRAS **** ***** **** *** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO, AVG SOLIDS, TOTAL (19) SAMPLE D GR 219 大大大大大大 **** ***** **** MEASUREMENT SUSPENDED **** 00530 1 0 0 REPORT PERMIT DLY When DIB GRAB 大大大大大大 *** *** *** **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG 375 COLIFORM, FECAL (13)GR SAMPLE 2200000 **** **** **** **** MEASUREMENT GENERAL *** DAILY WH 74055 1 0 1 #/100 ML PERMIT ***** *** GRAB **** *** ***** DISCHR **EFFLUENT GROSS VALUE** REQUIREMENT 375 ES FLOW, TOTAL 3R) SAMPLE 0 4.00 **** **** **** **** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT **** **** *** DAILY CONTIN *** EFFLUENT GROSS VALUE M GAL REQUIREMENT : MO. TOTAL SAMPLE MEASUREMENT 化氯氯烷基 PERMIT : 法法案政 REQUIREMENT 在總督書獻 MARIA ACA 100 SAMPLE MEASUREMENT PERMIT "我"都是为佛佛思 12-17-1 端叶 医脐病体 REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE **BRUCE MURPHY** SIGNAFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING PROJECT MANAGER THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE IS U.S.C. to 1001 AND 254-4074 03 11 04 618 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. at 1319. (Penalties under these statutes may include fines up to AREA TYPED OR PRINTED YEAR MO OFFICER OR AUTHORIZED AGENT NUMBER \$10,000 and or maximum imprisonment of between 6 months and 5 years.) COMMENT AND EXPLANATION OF ANY VIOLATIONS/ Reference all attachments here) RECIEVING WATER: MISSISSIPPI RIVER. NUMBER OF DAYS OF DISCHARGE: 1

EPA Form 3320-1 (Rev. 8-95)Previous editions may be used.

FLOWS ESTIMATED DUE TO NO FLOW METER.

PAGE

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PERMITTEE NAM NATIONAL POLE ISCHARGE ELIMINATION SYSTEM (NPDES) RESS (Include if different) DISCHA! Facility Name/Le MONITORING REPORT (DMR) WOUL RIVER STP, CITY OF (2-16) **CSO (OVER 4.8 MGD IN 84" INTR)** NAME (17-19) IL0031852 12345 501 W. FERGUSON AVE. A01 (SUBR 06) Form Approved. ADDRESS PERMIT NUMBER DISCHARGE MIMISER F - FINAL OMB No. 2040-0004. P.O. BOX 300 MAJOR WOOD RIVER. IL. 62095 Approval expires 05-31-98 MONITORING PERIOD CSO **FACILITY** WOOD RIVER STP, CITY OF OCR 0298 YEAR DAY YEAR MO DAY MO WOOD RIVER, IL 62095 FROM TO NO DISCHARGE LOCATION 03 11 01 03 11 30 NOTE: Read instructions before completing this form. (20-21) (22-23) (24-25) (26-27) (28-29) (30-31) ATTN: (3 Card Only) QUANTITY OR LOADING 4 Card Only QUANTITY OR CONCENTRATION FREQUENCY SAMPLE PARAMETER (38-45) (46-53) (46-53) (54-61) (54-61) ËΧ TYPE ANALYSIS (32.37) AVERAGE MAXIMUM UNITS MINIMUM **AVERAGE** MAXIMUM UNITS (62-63) (64-68) (69-70) BOD, 5-DAY SAMPLE. 19) 375 0 ***** 43 **** 大大大大大大 **** MEASUREMENT (20 DEG. C) 00310 1 0 0 *** REPORT PERMIT **** DLY When DIS GRAB **** **** *** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO, AVG SOLIDS, TOTAL 19) GR SAMPLE 0 375 *** ***** **** 77 **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT DLY When DIS GRAB *** **** *** **** **EFFLUENT GROSS VALUE** MG/L REQUIREMENT MÖ, AVĞ COLIFORM, FECAL GR (13) SAMPLE 3 11000000 **** **** **** **** MEASUREMENT **GENERAL** *** 74055 1 0 1 DAILY WH #/100 ML PERMIT GRAB **** ***** *** *** DISCHR **EFFLUENT GROSS VALUE** ***** REQUIREMENT 375 FLOW, TOTAL SAMPLE 3R) ES 0 37.50 **** *** *** **** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT *** **** DAILY CONTIN *** *** **EFFLUENT GROSS VALUE** REQUIREMENT MO. TOTAL M GAL SAMPLE MEASUREMENT 西班牙 PERMIT REQUIREMENT SAMPLE MEASUREMENT きんが 夏/国 東南です。 PERMIT RECUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED DATE NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE AND AM FAMILIAR WITH THE INFORMATION BUBMITTED HEREIN; AND BASED ON MY INCLIRY OF THOSE INDIVIDUALS MAKEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING PROJECT MANAGER THE POSSIBILITY OF FINE AND IMPRISORMENT, BEE 18 U.S.C. so 1001 AND 618 254-4074 03 12 05 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. 89 1319. (Penalities under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.) AREA TYPED OR PRINTED NUMBER YEAR MO OFFICER OR AUTHORIZED AGENT DAY COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) NUMBER OF DAYS OF DISCHARGE: 3 RECIEVING WATER: MISSISSIPPI RIVER. FLOWS ESTIMATED DUE TO NO FLOW METER.

5)Previous editions may be used.

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PERMITTEE NAN RESS (Include Facility Name/L If different) NAME WC RIVER STP, C	ITY OF				NAL POL. ISCHA (2-16)	DISCHARGE E MONITOR	LIMINATIO ING RE	N SYSTEM PORT (17-1	(DMR)	CSO (OVER 4.8	B MGI) IN 84	" INT	R)		
ADDRESS 501 W. FERGUSON A				IL003	1852			A01		(SUBR 06)		Form		•	12345	j
P.O. BOX 300				PE	RMIT NUMBE	ER .	0	HICHARGE !	AMBEA	F - FINAL		OMB!	No. 20	40-0004.		
WOOD RIVER, I		5			MO	NITORING F	ERIOD	· · · · · · · · · · · · · · · · · · ·		MAJOR		Appro	vai ex	pires 05-	31-98	
FACILITY WOOD RIVER STP. C				YEAR	MO	DAY	YEAR	MO	DAY	CSO		OCR	0298	ı		
LOCATION WOOD RIVER, IL 620	95		FROM	03	12_	01 TO	03	12	31	*** NO D NOTE: Read Ins	ISCH/			火火火	ibin fa	
ATTN:		(3 Card Only) QI	JANTITY OR LO	(20-21)	(22-23)		(26-27)	(28-29)	(30-31)	NOTE: Read Ins	RTUCII	ons Deic	ore co	FREGUENCY		m.
PARAMETER		(46-53)	(54-61		<u></u>	(4 Card Only (38-4.	<u> </u>		46-53)	(54-61)			NO. EX	OF ANALYSIS	SA!	MPLE YPE
(32-37)		AVERAGE	UMIXAM	М	UNITS	MINIM	JM	A	VERAGE	MUMIXAM		UNITS	(62-63)	(64-68)	i i	9-70)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	*****	****	k		****	**	29	5	****	(19)	0	375	GR	
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NAME/TITLE PRINCIPAL EXECUTIVE OFFIC	ER IC	ERTIFY UNDER PENALTY OF LA	W THAT I HAVE	PERSON	ALLY EXAMINE	o D		_	. 1	, ,	TI	ELEPHONE	:	t	ATE	
BRUCE MURPHY PROJECT MANAGER	ON OE TR	MY PROURY OF THOSE INDI- TAINING THE INFORMATION, I UE, ACCURATE AND COMPLET INFICANT PENALTIES FOR SUB-	Viduals immedi Believe The Su Fe. Am Awai	ATELY RE IBMITTED I RE THAT	SPONSIBLE FOR SP	CR IS	Z.	me	Mlu	ply						
1 NOULD I MANAGER	11 H	E POSSIBILITY OF FINE AND IM U.S.C. es 1319. (Penalties u	PRISONMENT, SI	EE 18 V.S	C. 88 1001 AND)	BIC	NATURE C	OF PRINCIPA	# mydgg 114 ft	618	254-	4074	04	01	07
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RECIEVING WATER: MISSIS		ŕ	R OF DAY	'S OF	DISCHA	RGE: 2								()(170	<u></u>

FLOWS ESTIMATED DUE TO NO FLOW METER.

EPA Form 3320-1 (R 95)Previous editions may be used.

PERMITTEE N DRESS (Include Facility Name. on if different) NAME WOOD RIVER STP, C	ITY OF			NATION DI:		DISCHARGE MONITO			(DMR)	CSO (OVER 4.	8 MGD IN 84	" INT	(R)	
ADDRESS 501 W. FERGUSON A				IL0031			Γ	A01		(SUBR 06)	Form		•	12345
P.O. BOX 300			_		RMIT NUMBE	₹		DISCHARGE	NUMBER	F - FINAL	ОМВ	No. 21	040-0004.	
WOOD RIVER,	L 62095		_		MON	VITORING	PERIO	<u> </u>		MAJOR	Appro	val e	xpires 05-3	1-98
FACILITY WOOD RIVER STP, C	ITY OF		 	YEAR	Mo	DAY	YEAR		DAY	CSO	OCR	J298	٠	
LOCATION WOOD RIVER, IL 620	95		FRÓM	04	01	01 TO	04	01	31		DISCHARGE	<u> </u>	***	
ATTN:		(3 Card Only) QU	IANTITY OR LO		(22-23) (24-25) (4 Card On	(26-27			NOTE: Read in	structions beto	HE CO	FREQUENCY	iis form.
PARAMETER		(46-53)	(54-61		*********	(38-		- GUA	(46-53)	(34-61)		NO. EX	OF ANALYSIS	SAMPLE
(32-37)		AVERAGE	MAXIMU	IM .	UNITS	MINI	MUM		AVERAGE	MUMIXAM	UNITS	(62-63)	4	(69-70)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	****	****	k		****	**	37	7	****	(19)	0	375	GR
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	****	* CA	***	****	***		EPORT O. AVG	****	MG/L		DLY When DIS	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	****	****	*		***	***	59	5	****	(19)	0	375	GR
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74055 1 0 1 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	***	****		****	***	***	*:	****	REPORT	# / 100 N		DAILY WH DISCHR	GRAB
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NAME/TITLE PRINCIPAL EXECUTIVE OFFIC	AND A	tify under penalty of LA M familian with the infol	RMATION SUBMIT	ITED HEREI	N: AND BASED			n	.//	1	TELEPHONE	<u>:</u>	DA	ATE
BRUCE MURPHY PROJECT MANAGER	OBTAIN TRUE, SKONIF THE P	MOUIRY OF THOSE MOIN THE INFORMATION, I I ADCURATE AND COMPLET ICANT PENALTIES FOR BURN OSSIBILITY OF FINE AND IMP.C. Se 1319. (Penalties un	Believe the Su 'e. 1 am awai Aitting Palse II Prischment, Si	JAMITTED IN RE THAT T NAORMATION EE 18 U.S.C	HFORMATION IS THERE ARE N, INCLUDING C. 88 1001 AND	ı	Es	IGNATURE	OF PRINCIPA	a executive	618 254-	4074	04 0	02 10
TYPEO OR PRINTED	\$10,0	00 and or maximum impr	isonment of be	etween on	nonths and 5	years.)		OFFICER	OR AUTHOR	ZED AMENT	AREA NUL CODE	IBER	YEAR I	MO DAY
RECIEVING WATER: MISSISS FLOWS ESTIMATED DUE TO	SIPPI RIVER.	NUMBEI	R OF DAY	rs of i	DISCHAF						ВС	C	OF	ÞΥ

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PERMITTEE ADDRESS (Include Facility Nam. WOOL VER STP. C	SITY OF			NATIONAL DISCI (2-10	MONITO!		N SYSTEM (NPOES) PORT (DMR) (17-19)	CSO (OVER 4	I.8 MGD I	N 84" IN	TR	
ADDRESS 501 W. FERGUSON A				IL0031852			401	(SUBR 06)		Form Appr	•	12345
P.O. BOX 300				PERMIT N	UMBER	Di	ISCHARGE MIMBER	F - FINAL	ı	OMB No. 2	040-0004	•
WOOD RIVER,					MONITORING	PERIOD		MAJOR		Approval e	expires 0	5-31-98
FACILITY WOOD RIVER STP. C				YEAR MO	DAY	YEAR	MO DAY	CSO		OCR 0298	 -	
LOCATION WOOD RIVER, IL 620	95		FROM	04 02		UT	02 29	*** NO NOTE: Read in	DISCHAR		_ ***	u tinia tarm
ATTN:		(3 Card Only) Q	UANTITY OR LOA	(20-21) (22-2	3) (24-25) (4 Card Oni		(28-29) (30-31) QUANTITY OR COL		ISTRUCTION	 	X PEOLIEN	
PARAMETER		(46-53)	(54.61		(38-	45)	(46-53)	(54-61)		NO.	OF ANALYSI	BAMPLE
(32-37)		AVERAGE	NAXIMU	M UN	ITS MINI	MUM	AVERAGE	MAXIMUM	UN	ITS (62-63		· •
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	*****	****		***	***	74	*****	(19) 0	375	GR
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	****	****	**	**	**	REPORT MO. AVG	****	МС	/L	DLY When	DIS GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****		****	***	176	****	(19) 0	375	GR
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	****	12. 25.00	** *******		REPORT MO. AVG	****	MG	/L	OLY When	DIS GRAB
COLIFORM, FECAL GENERAL	Sample Measurement	****	*****		****	**	*****	540000	(13) 0	376	GR
74055 1 0 1 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	****	****		**		*****	REPORT	23.44	00 ML	DAILY WH DISCHR	GRAB
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NAME/TITLE PRINCIPAL EXECUTIVE OFFIC	AND A	TIFY UNDER PENALTY OF LA M. FAMILIAR WITH THE INFO	W THAT I HAVE	PERSONALLY EX	BASED		. /	1	TELE	PHONE		DATE
BRUCE MURPHY PROJECT MANAGER	OBTAN TRUE, SIGNIF	Y INQUIRY OF THOSE INOR NING THE INFORMATION, I ACCURATE AND COMPLET SCANT PENALTIES FOR SUB!	Believe the Sur Te. I AM AWAR MITTING FALSE IN	MINITED INFORMA RE THAT THERE , NFORMATION, INCL	non is Are Uding	1	me M-	-ply				
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TYPED OR PRINTED COMMENT AND EXPLANATION OF ANY VIOLATIO	\$10,00	00 and or maximum imp	risonment of be	tiween 6 months	and 5 years)		OFFICER OR AUTHORI	ZED AGENT	AREA CODE	NUMBER	YEAR	MO DA

RECIEVING WATER: MISSISSIPPI RIVER.
FLOWS ESTIMATED DUE TO NO FLOW METER.

BC COPY

PERMITTEE NAM' RESS (Include Facility Name/Lc if different)	TV 05				NAL POL I SCHA L (2-16)	DISCHARGE MONITOR	ELIMINAT	PORT	(DMR)	CSO (OVER 4	0 840	T) IN DA	u ikit	DI ·	
ADDRESS 501 W. FERGUSON A			-	IL0031				(17-19 101		(SUBR 06)	.o mg	Form			12345
P.O. BOX 300	V K.		- }-		RMIT NUMBE	R	—	BCHARGE N		F - FINAL			٠,,	40-0004.	
WOOD RIVER, II	62095	· · · · · · · · · · · · · · · · · · ·								MAJOR				pires 05-	31-98
FACILITY WOOD RIVER STP, C		a	-	VEID		ITORING I		L		CSO		OCR		·p2 00 .	,. ••
LOCATION WOOD RIVER, IL 620			FROM	YEAR 04	03	01 TO	YEAR 04	мо 03			niscu	ARGE	200	***	
ATTN:	<u> </u>			(20-21)	(22-23) (<u> </u>		(28-29)	(10-11)	NOTE: Read in			re co		hls form.
PARAMETER			ANTITY OR LO	ADING	1 / 1 -	(4 Card Only	,)	QUANT	TITY OR CON	ICENTRATION			NO.	FREQUENCY	SAMPLE
(32-37)	\sim	(46-53)	(54-61			(38-4		1	46-53)	(54-61)			EX	ANALYSIS	TYPE
		AVERAGE	MAXIML	JM	UNITS	MINIA	NUM	^\	/ERAGE	MAXIMUM		UNITS	(62-63)	(64-68)	(69-70)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	*****	****	A		****	**	96		*****	(19)	0	375	GR
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****		****	***	**		PORT . AVG	****	N	/IG/L		DLY When D	(SGRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	****	k		****	**	164	4	***	(19)	0	375	GR
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FLOW, TOTAL	SAMPLE MEASUREMENT	*****	16.00		(3R)	***	**	**:	****	安安安安安			0	375	ES
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NAME/TITLE PRINCIPAL EXECUTIVE OFF		TIFY UNDER PENALTY OF LA M FAMILIAR WITH THE INFO							. /	1	,	TELEPHONE		ō	ATE
BRUCE MURPHY PROJECT MANAGER	ON MY OBTAIN TRUE, SIGNIF THE PI	I HOUIRY OF THOSE INON ING THE INFORMATION, I I ACCURATE AND COMPLET ICAMT PENALTIES FOR SUBNOSSIBILITY OF FINE AND IMP	IDUALS MANEDIA BELIEVE THE SU E. I AM AWAI HTTRIG FALSE IF PRISONMENT. SE	ATELY REA IBMITTED II RE THAT NFORMATIC EE 18 U.S.	SPONSIBLE FOR NEORMATION 18 THERE ARE 31, INCLUDING C. 98 1001 AND		2	/	Many Deliveries	L EXECUTIVE	618	254-	1074	04	04 13
TYPED OR PRINTED	33 U.S	i.C. ## 1319. (Penalties w 00 and or maximum impr	nder these stat isonment of be	ules may etween 6	include fines months and 5	up to years.)	•		R AUTHORIZ	•	AREA	NUM		YEAR	MO DAY
COMMENTAND EXPLANATION OF ANY VIOLAT RECIEVING WATER: MISSISS FLOWS ESTIMATED DUE TO	IPPI RIVER.	NUMBE	R OF DAY	'S OF	DISCHAF	RGE: 3					+**********************************	ВС	()P'

(REPLACES EPA FORM T-40 WHK. Y NOT BE USED.)

EPA Form 3320-1 (Rev. revious editions may be used.

PERMITTEE NAME/F Facility Name/Locc different) NAME WOOL VER STP, CI	TY OF				NAL POLUTA ISCHARL (2-16)			N SYSTEM (NPC PORT (DI (17-19)	MR)	SO (OVER 4.	8 MGI	D IN 84	" INT	R)	w	
ADDRESS 501 W. FERGUSON A	/E			IL0031			<u> </u>	A01	`	SUBR 06)		Form			1234	5
P.O. BOX 300			Ĺ	PE	RMIT NUMBE	R	[_6	INCHARGE NUMB		- FINAL				40-0004		
WOOD RIVER, IL		<u>5</u>		<u> </u>	MOI	VITORING P	ERIOD		1	IAJOR		• • •		pires 05	-31-98	
FACILITY WOOD RIVER STP, CI				YEAR	MO	DAY	YEAR		DAY	SO		OCR	298	i		
LOCATION WOOD RIVER, IL 620	95		FROM	04	04	01 10	04		30	*** NO NOTE: Read In:	DISCH) CO CO	white	this fo	irm.
ATTN:		(3 Card Only) Q	UANTITY OR LO	(20-21) ADING	(22-23) ((4 Card Only	(26-27)		0-31) OR CONCE		3114011	Olla Male		FREQUENC	-1	
PARAMETER		(46-53)	(54-61			(38-4.	<u>) </u>	(46-3	13)	(54-61)			NO. EX	OF ANALYSIS	8,	AMPLE TYPE
(32-37)		AVERAGE	MAXIMU	M	UNITS	MINIM	JM	AVER/	AGE	MAXIMUM		UNITS	(62-63)	(64-68)		69-70)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	****	***	*		****	**	145		****	(19)	0	375	GR	
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	*****		****	****	*	REPO MO. A		****	N	IG/L	10	DLYWhen	ARD EK	à
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	****	****	*		***	*	270		****	(19)	0	375	GR	
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COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	***	****	k		****	**	***	**	1497500		(13)	0	376	GR	
74055 1 0 1 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	****	建设设置	****	****		***		REPORT	# .55	/ 100 M	_	DAILY WH DISCHR	GRA	
FLOW, TOTAL	Sample Measurement	*****	19.50	19.50		***	t#	*****		****			0	375	ES	
82220 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	REPOR		M GAL	***		***		****		****		DAILY	CON	MIT
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	SAMPLE MEASUREMENT															
	PERMIT REQUIREMENT															
NAME/TITLE PRINCIPAL EXECUTIVE OFFICE	R I CI	ERTIFY UNDER PENALTY OF L	AW THAT I HAVE DRIMATION SUBMIT	PERSONATED HERE	ALLY EXAMINED IN: AND BASED))		•	. /	1	τ	ELEPHONE			DATE	
BRUCE MURPHY PROJECT MANAGER	OST TRU SIG	MY MOUSRY OF THOSE INDI AINING THE INFORMATION, I E. ACCURATE AND COMPLE VIFICANT PENALTIES FOR SUB POSSIBILITY OF FINE AND M	Believe the Su Te, I am awai Mitting false !! Mprisonament, so	HEMITTEU I RE THAT NFORMATIC EE 18 U.S.	INFORMATION IS THERE ARE DN, INCLUDING .C. ss 1001 AND	1	813	NATURE OF PR	RINCIPAL EX	ECUTIVE	618	254-	4074	04	05	05
TYPED OR PRINTED	\$10	U.S.C. se 1219. (Penalties 1 1,000 and or maximum imp	mder these stat risonment of be	ules may itween 6	include fines months and S	up to i years.)	}	OFFICER OR AL		. 1	AREA CODE	NUM	BER	YEAR	MO	DAY
COMMENTAND EXPLANATION OF ANY VIOLATION RECIEVING WATER: MISSISS FLOWS ESTIMATED DUE TO I	IPPI RIVER.	NUMBE	R OF DAY	'S OF	DISCHA	RGE: 2						ВС)	PI

(REPLACES EPA FORM T-40 WHICH NOT BE USED.)

EPA Form 3320-1 (Rev Previous editions may be used.

RESS (Include if different) DISCHAI MONITORING REPORT (DMR) Facility Name/Lo WOOL RIVER STP. CITY OF (17-19) CSO (OVER 4.8 MGD IN 84" INTR) (2-16) NAME 12345 IL0031852 A01 (SUBR 06) Form Approved. **501 W. FERGUSON AVE.** ADDRESS PERMIT NUMBER DISCHARGE NUMBER F - FINAL OMB No. 2040-0004. P.O. BOX 300 WOOD RIVER. 62095 MAJOR Approval expires 05-31-98 MONITORING PERIOD CSO WOOD RIVER STP. CITY OF OCR 0298 FACILITY YEAR DAY YEAR MO DAY WOOD RIVER, IL 62095 NO DISCHARGE LOCATION FROM 05 10 04 31 04 01 05 NOTE: Read instructions before completing this form. (26-27) (28-29) (30-31) (20-21) (22-23) (24-25) ATTN: (3 Card Only) (46-53) QUANTITY OR LOADING (4 Card Only) (38-45 QUANTITY OR CONCENTRATION SAMPLE PARAMETER (54-61) (34-61) (46-53) ٤X TYPE ANALYSIS (32-37) **AVERAGE** MAXIMUM UNITS MINIMUM AVERAGE MAXIMUM UNITE 62-63) (64-68) (69.70) BOD, 5-DAY SAMPLE 19) GR Õ 77 *** 头头头头头 ***** 大大大大大 MEASUREMENT (20 DEG. C) 00310 1 0 0 *** **** REPORT PERMIT **** DLY When DIS GRAB. *** *** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO. AVG SOLIDS, TOTAL 19) SAMPLE 0 155 **** **** *** **安大大大大大** MEASUREMENT SUSPENDED *** 00530 1 0 0 *** REPORT PERMIT **** DLY When DIS GRAS *** **这种种种** EFFLUENT GROSS VALUE REQUIREMENT MO, AVG MG/L OF THE PARTY 4 COLIFORM, FECAL BAMPLE (13)Ô *** 会会会会会会 **** 5200000 **** MEASUREMENT GENERAL REPORT *** DAILY WI # / 100 ML GRAB 19 74055 1 0 1 **** PERMIT DISCHR EFFLUENT GROSS VALUE REQUIREMENT FLOW, TOTAL 3R) SAMPLE 0 56.50 **** **** **** *** MEASUREMENT *** 82220 1 0 0 REPORT DAILY PERMIT CONTIN **** EFFLUENT GROSS VALUE REQUIREMENT MO. TOTAL M GAL 数POGKAPH 的 海台州的 SAMPLE MEASUREMENT SEAP MENTE PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT PERMIT REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIL AND BASED ON MY MOURRY OF THOSE MOINDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE, I AM AWARE THAT THERE ARE **BRUCE MURPHY PROJECT MANAGER** SIGNIFICANT PENALTIES FOR SUBMITTING FALSE REFORMATION, INCLUDING 07 THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 18 U.S.C. ## 1001 AND 04 06 618 254-4074 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.D. se 1319. (Penalties under these statutes may include fines up to AREA TYPED OR PRINTED OFFICER OR AUTHORIZED AGENT NUMBER YEAR DAY \$10,000 and or maximum imprisonment of between 6 months and 5 years.) COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) RECIEVING WATER: MISSISSIPPI RIVER. NUMBER OF DAYS OF DISCHARGE: 7 FLOWS ESTIMATED DUE TO NO FLOW METER. BC

(REPLACES EPA FORM T-40 WHICE

Y NOT BE USED.)

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NATIONAL POLI

ISCHARGE ELIMINATION SYSTEM (NPDES)

PERMITTEE NAM

EPA Form 3320-1 (Re. 35) Previous editions may be used,

WOUD RIVER STP. CITY OF CSO (OVER 4.8 MGD IN 84" INTR) NAME (2.16)(17-19) Form Approved. 12345 IL0031852 A01 (SUBR 06) ADDRESS 501 W. FERGUSON AVE. PERMIT NUMBER F-FINAL DISCHARGE NUMBER OMB No. 2040-0004. P.O. BOX 300 WOOD RIVER. 62095 MAJOR Approval expires 05-31-98 **MONITORING PERIOD** CSO **FACILITY** WOOD RIVER STP. CITY OF OCR 0298 YEAR MO DAY YEAR MO DAY WOOD RIVER, IL 62095 ** FROM NO DISCHARGE LOCATION 04 TO 04 06 01 80 30 NOTE: Read instructions before completing this form. ATTN: (26-27) (28-29) (30-31) (22-23) (24-25) (20-21) (3 Card Only) QUANTITY OR LOADING (4 Card Only) (38-43) QUANTITY OR CONCENTRATION FREQUENCY SAMPLE PARAMETER (46-53) (54-61) (46-33)(54-61) ĒΧ TYPE ANALYSIS (32-37) AVERAGE MAXINUM UNITS MINIMUM **AVERAGE** MAXIMUM UNITS 62-63) (64-68) (69-70) BOD, 5-DAY SAMPLE 19) 375 0 安安安安安安 **** 安大大大大大 40 **** MEASUREMENT (20 DEG, C) 00310 1 0 0 *** REPORT PERMIT . *** *** **** **** DLY When DIS IGRAB **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO, AVG SOLIDS, TOTAL (19) SAMPLE 375 0 *** **** **** 73 **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT *** *** **** *** DLY When DIS GRAS **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG 376 COLIFORM, FECAL SAMPLE (13)GR ٥ **** **** **** **** 4150000 MEASUREMENT **GENERAL** *** 74055 1 0 1 # / 100 ME. HWY JAG REPORT PERMIT **** **** **** **** GRAB DISCHA **EFFLUENT GROSS VALUE** RECUREMENT *** 375 FLOW, TOTAL SAMPLE 3R) ES 0 *** 18.00 **** **** *** MEASUREMENT 表表表表 82220 1 0 0 REPORT PERMIT *** *** *** DAILY CONTIN *** EFFLUENT GROSS VALUE REQUIREMENT M GAL MO. TOTAL SAMPLE MEASUREMENT 被动物的物质 理關係。於於 學生而為多少 PERMIT 1 多数 生 19.17 P REQUIREMENT 对方引持特殊的 SAMPLE MEASUREMENT PERMIT : REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMPLED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE REFORMATION SUBMITTED HEREIR AND BASED ON MY PAQUIRY OF THOSE PROVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE, I AM AWARE THAT THERE ARE PROJECT MANAGER SIGNIFICANT FENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 18 U.S.C. SE 1001 AND 618 254-4074 04 07 13 SIGNATURE OF PRINCIPAL EXECUTIVE 23 U.S.C. as 1318. Penalties under these statutes may include fines up to AREA TYPED OR PRINTED OFFICER OR AUTHORIZED AGENT NUMBER YEAR MO DAY \$10,000 and or maximum imprisonment of between 6 months and 5 years.) COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) NUMBER OF DAYS OF DISCHARGE: 3 RECIEVING WATER: MISSISSIPPI RIVER. FLOWS ESTIMATED DUE TO NO FLOW METER.

(REPLACES EPA FORM T-10 WANT MAY NOT BE USED.)

NATIONAL POL

DISCHA.

DISCHARGE ELIMINATION SYSTEM (NPDES)

MONITORING REPORT (DMR)

PERMITTEE NA

Facility Name/L

EPA Form 3320-1

d-95)Previous editions may be used.

RESS (Include n if different)

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PERMITTEE NAME 'ESS (Include Facility Name/Loc f different) NAME WOOL XIVER STP, C	TV OF				NAL POLU ISCHAR	ONITOF			(DMR)	CSO (OVER 4.	0 MC	יגע או רוב	' INT	D)	1
ADDRESS 501 W. FERGUSON A				IL0031	(2-16) 1852		<u> </u>	<i>(17-19</i> 401		(SUBR 06)	o mo	Form.		-	12345
P.O. BOX 300	V 44.		-		RMIT NUMBER	1	—	SCHARGE H		F - FINAL			• •	40-0004.	
WOOD RIVER.	62095	······································								MAJOR				pires 05-3	1-98
FACILITY WOOD RIVER STP. C			-	YEAR	MON	DAY	YEAR	MO		CSO		OCR		•	
LOCATION WOOD RIVER, IL 620			FROM	04		01 TO	04	07	31		DISCI	HARGE		***	
ATTN:	- 	· · · · · · · · · · · · · · · · · · ·	_	(20-21)	(22-23) (2	<u>vi</u>		(28-29)		NOTE: Read In			re co	mpleting ti	his form.
PARAMETER			JANTITY OR LOA	DING		(4 Card Only	1)	QUANT	ITY OR CON	CENTRATION			NO.	FREQUENCY	SAMPLE
(32-37)	\sim	(46-53)	(54-61			(38-4		1	16-53)	(54-61)	\neg		EX	ANALYSIS	TYPE
		AVERAGE	MAXIMU	M	UNITS	MININ	(UM	AV	ERAGE	MAXIMUM	-	UNITS	(62-63)	(64-68)	(69-70)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	***	***	\		***	**	10		***	1	(19)	0	375	GR
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COMMENT AND EXPLANATION OF ANY VIOLATION	NS(Reference all attach	ments here)													177
RECIEVING WATER: MISSISS			R OF DAY	'S OF	DISCHAR	RGE: 2				·		BC			ノド

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(REPLACES EPA FORM T-40 WHILE WY NOT BE USED.)

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PERMITTEE NAMEIP SS (Include Facility Name/Loca lifferent) NAME WOOL IVER STP. (CITY OF				IAL POLUT SCHAR((2-/6)		NG REP	ON SYSTEM (ORT (E (17-19)	DMR)	SO (OVER 4	.a MG	in in s	a" IN	TR)	ž	
ADDRESS 501 W. FERGUSON				IL0031		. ———		A01		SUBR 06)	·• ****		Appro		12345	;
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FACILITY WOOD RIVER STP.	CITY OF		_	YEAR	MO	DAY	YEAR	MO	DAY	SO		OCR 0)298			
LOCATION WOOD RIVER, IL 62	095		FROM	04	08	01 TO	04	08	31					**		
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COMMENT AND EXPLANATION OF ANY VIOLATION			or asymmetric Of	vermeen 0	nonns and	s 3 years.j	·			e restact t	CODE	115.161		1		1
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RECIEVING WATER: MISSIS	SIPPI RIVER.	NUME	BER OF D	AYS O	F DISCH	HARGE: 4	4									

FLOWS ESTIMATED DUE TO NO FLOW METER.

EPA Form 3320-1 (R 5)Previous editions may be used.

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(REPLACES EPA FORM T-40 WHILE Y NOT BE USED.)

PERMITTEE NAME/ TSS (Include different) NATIONAL POLI SISCHARGE ELIMINATION SYSTEM (NPDES) Facility Name/Loca DISCHAR INITORING REPORT (DMR) CSO (OVER 4.8 MGD IN 84" INTR) (17-19)NAME WOOL KIVER STP. CITY OF (2-16) (SUBR 06) Form Approved. 12345 IL0031852 A01 ADDRESS 501 W. FERGUSON AVE. PERMIT NUMBER DISCHARGE NUMBER F-FINAL OMB No. 2040-0004. P.O. BOX 300 Approval expires 05-31-98 62095 MAJOR WOOD RIVER. IL MONITORING PERIOD CSO **OCR 0298** WOOD RIVER STP, CITY OF FACILITY MO DAY YEAR MO DAY YEAR *** FROM TO *** NO DISCHARGE LOCATION WOOD RIVER, IL 62095 04 04 09 30 09 01 NOTE: Read instructions before completing this form. (20-21) (22-23) (24-25) (26-27) (28-29) (30-31) ATTN: FREQUENCY (4 Card Only) (38-45 QUANTITY OR CONCENTRATION (3 Card Only) QUANTITY OR LOADING SAMPLE NO. PARAMETER (16.53 (45-53) (54-61) (54-61) EΧ ANALYSIS TYPE (32-37) AVERAGE MAXIMUM UNITS MINIMUM **AVERAGE** MAXIMUM UNITS (62-63) (64-68) (69-70) 19) BOD, 5-DAY GR SAMPLE 0 42 **** **** **** **** MEASUREMENT (20 DEG. C) *** 00310 1 0 0 REPORT PERMIT DLY When DIS GRAB **** **** 安全大大大大 *** **** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO, AVG SOLIDS, TOTAL 19) 375 GR SAMPLE 0 89 **** ***** ***** **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT **** DLY When DIS GRAB **** **** **** **EFFLUENT GROSS VALUE** MG/L REQUIREMENT MO. AVG 375 GR COLIFORM, FECAL 13) 0 SAMPLE 315000 **** **** **** **** MEASUREMENT **GENERAL** *** DAILY WH 74055 # / 100 ML 1 0 1 REPORT PERMIT. **** **** **** **** GRAB DISCHR EFFLUENT GROSS VALUE REQUIREMENT *** 375 FLOW, TOTAL ES SAMPLE 3R) 2.50 O **** **** **** **** MEASUREMENT **** 82220 1 0 0 REPORT PERMIT -CONTIN DAILY **** ***** ***** *** **EFFLUENT GROSS VALUE** REQUIREMENT M GAL MO. TOTAL SAMPLE MEASUREMENT PERMIT . REQUIREMENT SAMPLE MEASUREMENT PERMIT. REQUIREMENT SAMPLE. MEASUREMENT PERMIT: 856 24 REQUIREMENT CERTIFY UNDER PENALTY OF LAW THAT I HAVE FERSONALLY EXAMINED DATE TELEPHONE NAME/TITLE PRINCIPAL EXECUTIVE OFFICER AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN: AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING PROJECT MANAGER 254-4074 12 THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. as 1001 AND 618 04 10 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. 35 1319. (Penalties under these statutes may include fines up to MO DAY YEAR TYPED OR PRINTED \$10,000 and or maximum imprisonment of between 6 months and 5 years.) OFFICER OR AUTHORIZED AGENT NUMBER COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) RECIEVING WATER: MISSISSIPPI RIVER. NUMBER OF DAYS OF DISCHARGE: 1

FLOWS ESTIMATED DUE TO NO FLOW METER.

BC

EPA Form 3320-1 (Rev 5) Previous editions may be used.

(REPLACES EPA FORM T-40 WHI Y NOT BE USED.)

PERMITTEE NAMEIN ESS (Include Facility Name/Location if different)	TTV 05			DISCHA	RGE	CHARGE MONITOR	ELIMINAT ING RE	ION SYSTEM (NPDES) PORT (IJMR) (17-19)	CSO (OVER 4	9 146	יא פאו פא ^י	" INIT	ום		
NAME WOOD RIVER STP, C ADDRESS 501 W. FERGUSON A		<u> </u>	- 11	.0031852	<i>/</i>			A01	(SUBR 06)	.o mg	Form.			12345	
P.O. BOX 300	W best		-	PERMIT N	UMBER			ISCHARGE NUMBER	F - FINAL				40-0004.		
WOOD RIVER,	62095				MON	TOBILO	EBION		MAJOR		Appro	val ex	pires 05-	31-98	
FACILITY WOOD RIVER STP. C			- 	YEAR MC		TORING P	YEAR	MO DAY	CSO		OCR 0	298			
LOCATION WOOD RIVER, IL 620			—	04 10)1 TO	04	10 31	*** NO	DISCH	ARGE		***		
ATTN:				10-21) (22-2		4-25)	(26-27)	(28-29) (30-31)	NOTE: Read in	structi	ons beto	re cor	mpleting	this for	m.
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(32-37)		AVERAGE	MAXIMUM	UN	πs	MINIM		AVERAGE	MAXIMUM		UNITS	EX (62-63)	ANALYSIS (64-68))	(PE 2-70)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	*****	***			****	:*	109	***	(19)		375	GR	
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RECIEVING WATER: MISSISS	IPPI RIVER.	NUMBER	R OF DAYS	OF DISC	HAR	GE: 4					BC.				

EPA Form 3320-1 (Rev. 8 revious editions may be used,

PERMITTEE NAME SS (Include Facility Name/Locator, if different)

NAME WOOD RIVER STP, CITY OF DISCHARG ONITORING REPORT (DMR) CSO (OVER 4.8 MGD IN 84" INTR) (2-16) IL0031852 12345 **501 W. FERGUSON AVE.** A01 (SUBR 06) Form Approved. ADDRESS PERMIT NUMBER P.O. BOX 300 DISCHARGE MAKBER F - FINAL OMB No. 2040-0004. MAJOR WOOD RIVER. 62095 Approval expires 05-31-98 MONITORING PERIOD CSO FACILITY WOOD RIVER STP. CITY OF OCR 0298 YEAR МО DAY YEAR MO DAY ** LOCATION WOOD RIVER, IL 62095 FROM TO NO DISCHARGE 04 12 01 12 31 04 NOTE: Read instructions before completing this form. (20-21) (22-23) (24-25 (26-27) (28-29) (30-31) ATTN: 3 Card Only) QUANTITY OR CONCENTRATION QUANTITY OR LOADING (4 Card Only) FREQUENCY SAMPLE PARAMETER (34-61) (46-33) (54-61) (38-45) (46-53) ΕX ANALYSIS TYPE (32-37)UNITS AVERAGE MAXIMUM UNITS AVERAGE MAXIMUM MINIMUM (69-70) (62-63) 164-68 BOD, 5-DAY 19) GR 375 SAMPLE 0 **** 11 **** **** ***** MEASUREMENT (20 DEG, C) *** 00310 1 0 0 REPORT PERMIT **** *** DLY When DIS GRAB **** **** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO. AVG SOLIDS, TOTAL GR 8AMPLE 19) 375 0 45 *** 食食食食食食 **** **** MEASUREMENT SUSPENDED 女女女女 00530 1 0 0 REPORT PERMIT DLY When DIS GRAS **** *** 大大大大大大 *** EFFLUENT GROSS VALUE REQUIREMENT. MO. AVG MG/L 375 COLIFORM, FECAL SAMPLE 13) GR Û 200000 **** *** **** ***** MEASUREMENT GENERAL *** DAILY WH 74055 1 0 1 # / 100 ML REPORT PERMIT **** *** **** **** GRAB DISCHR EFFLUENT GROSS VALUE REQUIREMENT **** 375 FLOW, TOTAL 3R) SAMPLE E8 Ò **党党党党党会** 24.00 *** **** **** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT *** DAILY CONTIN *** *** **** EFFLUENT GROSS VALUE M GAL RECUIREMENT MO. TOTAL SAMPLE MEASUREMENT **你就是这个人** PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT A REQUIREMENT SAMPLE MEASUREMENT PERMIT $J_{\mathcal{F}}(n) \leq n^{-1}$ REQUIREMENT CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN: AND BASED ON MY INCLURY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE BUBINITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. ! AM AWARE THAT THERE ARE **PROJECT MANAGER** SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRIBONMENT. SEE 15 U.S.C. 98 1001 AND 618 254-4074 05 01 04 SIGNATURE OF PRINCIPAL EXECUTIVE 23 U.S.C. es 1319. (Penalties under these statutes may include fines up to AREA NUMBER YEAR MO DAY TYPED OR PRINTED \$10,000 and or maximum imprisonment of between 6 months and 5 years.) OFFICER OR AUTHORIZED AGENT COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) eDMR 1-6-05 NUMBER OF DAYS OF DISCHARGE: 1 RECIEVING WATER: MISSISSIPPI RIVER. FLOWS ESTIMATED DUE TO NO FLOW METER. BC

(REPLACES EPA FORM T-40 WHICH MA) BE USED.)

EPA Form 3320-1 (Rev. 8-5) Jour editions may be used.

NATIONAL POLUT.

CHARGE ELIMINATION SYSTEM (NPDES)

PAGE 1

PERMITTEE NAM. RESS (Include Facility Name/Location if different) NATIONAL POLD SCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR) CSO (OVER 4.8 MGD IN 84" INTR) WOOD RIVER STP. CITY OF (2-16) (17-19) Form Approved. 12345 ADDRESS 501 W. FERGUSON AVE. IL0031852 A01 (SUBR 06) PERMIT NUMBER P.O. BOX 300 DISCHARGE NUMBER F-FINAL OMB No. 2040-0004. MAJOR WOOD RIVER, 62095 Approval expires 05-31-98 MONITORING PERIOD FACILITY WOOD RIVER STP. CITY OF CSO OCR 0298 DAY YEAR MO DAY YEAR MO 安安安 WOOD RIVER, IL 62095 FROM LOCATION 01 TO 05 31 NO DISCHARGE 05 01 01 NOTE: Read instructions before completing this form. ATTN: (20-21) (22-23) (24-25) (26-27) (28-29) (30-31 (3 Card Only) (46-53) QUANTITY OR LOADING QUANTITY OR CONCENTRATION (4 Card Only) FREQUENCY SAMPLE PARAMETER NO. (38-45) (54-61) (54-61) (46-53) EΧ TYPE ANALYSIS (32-37) **AVERAGE** MAXIMUM UNITS MINIMUM AVERAGE MAXIMUM UNITS 62-63) (64-68) (69-70) BOD, 5-DAY SAMPLE 19) GR Õ **** **** ***** 21 *** MEASUREMENT (20 DEG. C) 00310 1 0 0 大大大大 REPORT PERMIT *** *** **** *** DLY When DIS GRAS **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG SOLIDS, TOTAL GR SAMPLE (19)63 0 **** **** 大大大大大大 安安会会会会 MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT DLY When DIS GRAB **** *** *** **** **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG COLIFORM, FECAL GR SAMPLE (13) O **** **** **** 210000 **** MEASUREMENT GENERAL *** DAILY WH 74055 1 0 1 # / 100 ML REPORT PERMIT **** GRAD *** 女女女女女女 **** DISCHR **EFFLUENT GROSS VALUE** REQUIREMENT ***** 375 FLOW, TOTAL SAMPLE 3R) ES 66.50 O *** **** **** 女女女女女女 MEASUREMENT 82220 1 0 0 *** REPORT PERMIT *** *** **** **** DAILY CONTIN **EFFLUENT GROSS VALUE** REQUIREMENT M GAL MO. TOTAL SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT (λT) PERMIT at godfer it gebe REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT **"据在学生心港"**: CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER DATE TELEPHONE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN: AND BASED ON MY HOUTRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE PROJECT MANAGER SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION. INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 18 U.S.C. so 1001 AND 254-4074 05 02 02 618 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. so 1318. (Penalties under these statutes may include fines up to AREA TYPED OR PRINTED \$10,000 and or maximum imprisonment of between 6 months and 5 years.) OFFICER OR AUTHORIZED AGENT NUMBER YEAR MO DAY COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) NUMBER OF DAYS OF DISCHARGE: 4

RECIEVING WATER: MISSISSIPPI RIVER. FLOWS ESTIMATED TO NO FLOW METER.

EPA Form 3320-1 (Rev. 8-95), vious editions may be used.

p. DMR 2.15.05

BC

ESS (Include if different) Facility Name/Loc. DISCHARG ONITORING REPORT (DMR) CSO (OVER 4.8 MGD IN 84" INTR) WOOD RIVER STP, CITY OF NAME (2-16) (17-19) 12345 **501 W. FERGUSON AVE.** IL0031852 (SUBR 06) Form Approved. ADDRESS A01 PERMIT NUMBER DISCHARGE MINISER F - FINAL P.O. BOX 300 OMB No. 2040-0004. **WOOD RIVER.** 62095 MAJOR Approval expires 05-31-98 1L MONITORING PERIOD WOOD RIVER STP, CITY OF CSO OCR 0298 **FACILITY** YEAR DAY YEAR MO DAY MO **WOOD RIVER, IL 62095** NO DISCHARGE * LOCATION FROM TO 05 02 01 Ω5 02 28 NOTE: Read Instructions before completing this form. ATTN: (20-21) (22-23) (24-25) (26-27) (28-29) (30-31) QUANTITY OR CONCENTRATION (3 Card Only) (46-53 QUANTITY OR LOADING FREQUENCY (4 Card Only) (38-43) NO. SAMPLE PARAMETER (34-61) (54-61)(46-53) TYPE EX ANALYSIS (32-37) AVERAGE **AVERAGE** MAXIMUM **UNITS** MINIMUM MAXIMUM UNITS (62-63)(64-68) (69-70) BOD, 5-DAY 19) SAMPLE Û **** **** **** 30 **** MEASUREMENT (20 DEG. C) 00310 1 0 0 *** REPORT PERMIT **** **** **** **** DLY When DIS GRAS EFFLUENT GROSS VALUE REQUIREMENT MG/L MO. AVG SOLIDS, TOTAL SAMPLE 19) 275 0 **** **** **** 147 **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT **** DLY When DIS GRAB **** **** *** **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG COLIFORM, FECAL SAMPLE (13)IGR n 大大大大大大 **** **** **** 190000 MEASUREMENT GENERAL *** 74055 1 0 1 DAILY WH REPORT # / 100 ML PERMIT GRAB -**** **** ***** **** **EFFLUENT GROSS VALUE** DISCHR RECUBEREMENT **** 375 FLOW. TOTAL 3R) SAMPLE ES 13.00 0 **** **** 女女女女女女 **** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT . **** DAILY CONTIN **** **** **** **EFFLUENT GROSS VALUE** REQUIREMENT M GAL MO. TOTAL SAMPLE MEASUREMENT PERMIT REQUIREMENT 1800 SAMPLE MEASUREMENT PERMIT Marie Commence REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT CERTIFY UNDER PENALTY OF LAW THAT ! HAVE PERSONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE PROJECT MANAGER SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING 254-4074 05 03 07 THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. se 1001 AND 618 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. vs 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.) TYPED OR PRINTED OFFICER OR AUTHORIZED AGENT NUMBER YEAR MO DAY COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) RECIEVING WATER: MISSISSIPPI RIVER. NUMBER OF DAYS OF DISCHARGE: 2 FLOWS ESTIMATED DUE TO NO FLOW METER. BC

NATIONAL POLUT

CHARGE ELIMINATION SYSTEM (NPDES)

EPA Form 3320-1 (Rev. 8-8 Jous editions may be used.

PERMITTEE NAME

(REPLACES EPA FORM T-40 WHICH MA

PERMITTEE NAME SS (Include Facility Name/Lock of different) NAME WOOD RIVER STP, C	SITY OF			NATIO	NAL POLUT/ ISCHARG (2-16)	HARGE	ELIMINATI RING R	ON SYSTEN EPORT (17-)	(DMR)	CSO (OVER 4.8	MGD IN 84	דאו "	R)	
ADDRESS 501 W. FERGUSON A		IL0031				A01		(SUBR 06)	Form	Appr	oved.	12345		
P.O. BOX 300			L	PE	RMIT NUMBE	R	L	DISCHARGE	NLM#ER	F - FINAL	OMB	No. 20	1 40-00 04.	
	L 62095		<u>.</u>		MOI	NITORING	PERIO)		MAJOR	B F		xpires 05-	11-98
FACILITY WOOD RIVER STP, C	ITY OF			YEAR	MO	DAY	YEAR	MÓ	DAY	CSO	OCR	0298	1	
LOCATION WOOD RIVER, IL 620)95		· FROM	05	03	01 TO	L. VV.	03	31	*** NO DI: NOTE: Read inst	BCHARGE		###	hle form
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Facility Name/L if different) NAME WC RIVER STP. (ITY OF				CHA (2-16)	MONITORI		ORT (DMR) (17-19)	" CSO (OVER 4	1.8 M(GD IN 8	4" IN	TR)			
ADDRESS 501 W. FERGUSON				IL00318				A01	(SUBR 06)	• .						
P.O. BOX 300				PERI	MIT NUMBE	R		DISCHARGE NUMBER	F - FINAL		OMB	No. 20	40-0004.			
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≟PA Form 3320-1. (R∰77°15)Previous edi	uons may be used.		(REPLACES	EPA FORM	T-40 WH()):	YY NOT BE	USED.)						PAG /	OF 1		

NATIONAL POLUN SCHARGE ELIMINATION SYSTEM (NPDES) DISCHARL MONITORING REPORT (DMR) WOOD RIVER STP. CITY OF CSO (OVER 4.8 MGD IN 84" INTR) (2-16) (17-19) IL0031852 A01 (SUBR 06) Form Approved. 12345 ADDRESS 501 W. FERGUSON AVE. PERMIT NUMBER F - FINAL OMB No. 2040-0004. P.O. BOX 300 DISCHARGE NAMBER WOOD RIVER. 62095 MAJOR Approval expires 05-31-98 MONITORING PERIOD CSO WOOD RIVER STP. CITY OF **OCR 0298** FACILITY YEAR MÓ DAY YEAR MO DAY *** WOOD RIVER, IL 62095 LOCATION FROM TO NO DISCHARGE X 05 05 01 05 05 31 NOTE: Read instructions before completing this form. ATTN: (20-21) (22-23) (24-25) (26-27) (28-29) (30-31) (3 Card Only) (46-53) QUANTITY OR LOADING (4 Card Only) QUANTITY OR CONCENTRATION FREQUENCY NO. SAMPLE PARAMETER (54-61) (46-33) (54-61) 138-43 ĖΧ TYPE ANALYSIS (32-37) MAXIMUM MAXIMUM UNITS AVERAGE UNITS **AVERAGE** MINIMUM (62-63) (64-68) (69-70) BOD, 5-DAY 19) 375 SAMPLE 0 *** **** *** 大大大大大大 MEASUREMENT (20 DEG. C) 00310 1 0 0 *** REPORT PERMIT **** DLY When DIS GRAB *** **** **火火火火火火 EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG SOLIDS, TOTAL SAMPLE (19)0 **** *** **** *** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT *** ***** **** DLY When DIS CIRAS *** EFFLUENT GROSS VALUE REQUIREMENT MG/L MO: AVG COLIFORM, FECAL GR SAMPLE (13)0 **** **** ***** ***** MEASUREMENT GENERAL *** 74055 1 0 1 DAILY WH REPORT # / 100 ML DERMIT **** *** *** **** GRAS DISCHR EFFLUENT GROSS VALUE REQUIREMENT FLOW. TOTAL SAMPLE 3R) les 0 大大大大大 *** **** *** MEASUREMENT 82220 1 0 D *** REPORT PERMIT **** *** DAILY CONTIN **** *** EFFLUENT GROSS VALUE REQUIREMENT M GAL MO. TOTAL SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT 1375 SAMPLE MEASUREMENT PERMIT REQUIREMENT CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERBONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER DATE TELEPHONE and am familiar with the information submitted Herein; and based ON MY INCLIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I SELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING PROJECT MANAGER THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. . 1001 AND 618 05 08 254-4074 06 BIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. ee 1318. (Penalties under these statutes may include fines up to AREA TYPED OR PRINTED OFFICER OR AUTHORIZED AGENT NUMBER YEAR MO DAY \$10,000 and or maximum imprisonment of between 6 months and 5 years.) COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) RECIEVING WATER: MISSISSIPPI RIVER. NUMBER OF DAYS OF DISCHARGE: 0

FLOWS ESTIMATED DUE TO NO FLOW METER.

EPA Form 3320-1 [Rev. 8 revious editions may be used.

OT BE USED.)

BC

PERMITTEE NAW Facility Name/L NAME WC RIVER STP, CITY OF					NAL PC SCHA (2-16)	IA MONITORING REPORT (DMR) 16, (17-19) C:			CSO (OVER 4.8 MGD IN 84" INTR)							
ADDRESS 501 W. FERGUSON				IL003					01		(SUBR 06)		Form A	Appro	ved. 1	2345
P.O. BOX 300				PE	RMIT NUMBE	R		Di	CHARGE N	UMBER	F - FINAL				40-0004.	
	IL 6209	5	_			VITORING		~~~	* *************************************		MAJOR CSO		Appro OCR 0		pires 05-31	-98
FACILITY WOOD RIVER STP. (LOCATION WOOD RIVER, IL 62			 FROM	YEAR	MO	DAY TO		AR	MO	DAY		DISCH	ARGE	X 790	***	
ATTN:	vao			(20-21)	(22-23)	01 TO	L9	27)	06 (28-29)	(30-31)	HOTE. Bandin				1	s form.
PARAMETER (32-37)		(46-53)	UANTITY OR LOA (54-61	ADING		(4 Card C	nly) 8-45)		QUANT (TITY OR CC 46-53)	ONCENTRATION (54-61)			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMU	М	UNITS	MII	MUMI		A	VERAGE	MAXIMUM		UNITS	(62-63	(64-68)	(69-70)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	****	****	*	****	***	***		14:		*****		(19)	0	375	GR
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COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	*****	****	*		***	***		**	****	3900000		(13)	0	375	GR
74055 1 0 1 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	****	#43.4 k g	****	***	***	Stary Stary	**	***	REPORT	#	#/ 100 N	L	DAILY WH DISCHR	GRAB
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82220 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	REPOR MO. TO		M GAL	***	***		**	***	****		***		DAILY	CONTIN
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BRUCE MURPHY PROJECT MANAGER	ON MI OBTAIL TRUE,	INCUIRY OF THOSE IN VING THE INFORMATION, ACCURATE AND COMPL ICANT PENALTIES FOR SU	DIVIOUALS IMME I BELIEVE THE JETE. I AM AV	EDIATELY SUBMITTE WARE TH	RESPONSIBLE ED INFORMATI AT THERE A	FOR ION IS RE	1	B.		M	phy		4			
	THE P	OSSIBILITY OF FINE AND I	IMPRISONMENT.	SEE 18 L	J.S.C. as 1001	AND					AL EXECUTIVE	618	254-		 	07 13
TYPED OR PRINTED		.C. 95 1319 (Penalties w 30 and or maximum im	prisonment of l	between (months an	d 5 years.)		D	FICER O	RAUTHOR	ZED AGENT	AREA CODE	NUM	BER	YEAR	MO DAY
COMMENT AND EXPLANATION OF ANY VIOLATIC		•					_									
RECIEVING WATER: MISSIS	SIPPI RIVER.	NUME	BER OF DA	AYS C	IF DISCI	HARGE:	3									

FLOWS ESTIMATED DUE TO NO FLOW METER.

PERMITTEE ADDRESS (Include stion if different) NAME OD RIVER STP. (NITY OF			NATIO IC		NT DISCHARGE MONITORI			DMR)	CSO (OVER 4	s MG	D IN 84	t" INT		
ADDRESS 501 W. FERGUSON				IL003				401		(SUBR 06)	.0	Form A			12345
P.O. BOX 300					RMT NUMBE	R	-	SCHARGE NUV		F - FINAL		OMB N	lo. 20/	10-0004.	
WOOD RIVER,	L 6209	95	_		NO.	IITORING P	EDION			MAJOR		Approv	val exp	pires 05-3	1-98
FACILITY WOOD RIVER STP.			_	YEAR	MO	DAY	YEAR	MO	DAY (CSO		OCR 0	298		
LOCATION WOOD RIVER, IL 62			 FROM		07	01 TO	05		31	*** NO	DISCHA	RGE	x	***	
ATTN:				(20-21)		(24-25)	(26-27)		(30-31)	NOTE: Read in:	struction	ns before	com	pleting th	is form.
PARAMETER		(3 Card Only) Q (46-33)	UANTITY OR LO	DADING		(4 Card Onl	y)	QUANTI	·	CENTRATION (54-61)			NO.	FREQUENCY	SAMPL
(32-37)		AVERAGE	MAXIMU		UNITS	MINA		T	RAGE	MAXIMUM		UNITS	EX (62-63)	ANALYSIS (64-68)	TYPE) (69-7)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	*****	****	*		***	**	87		****	(19)	· · · · · ·	375	GR
00310 1 0 0' EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	****		****	****	**		ORT	****	M	IG/L	(a)	DLY When I	DIS GRAB
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	PERMIT REQUIREMENT		rate v										1 1 1 1 1		
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NAME/TITLE PRINCIPAL EXECUTIVE OFFI	AND	RTIFY UNDER PENALTY OF AM FAMILIAR WITH THE IN	FORMATION SUE	BMITTED H	EREIN: AND E	BASED		,	1		TE	LEPHONE		[DATE
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TYPED OR PRINTED	\$10,	.S.C. 20 1318. (Penalties v 000 and or maximum im	inder these sta prisonment of	tules may between t	include fine 6 months an	s up to d 5 years.)	L	FFICER OR			AREA	NUME	BER	YEAR	мо а
PROJECT MANAGER	OBTAL TRUE SIGN THE 35 10, ONS(Reference all a	E. ACCURATE AND COMPI INCANT PENALTIES FOR SI POSSIBILITY OF FINE AND S.C. sa 1318. (Penalties I 000 and or maximum im uttachments here)	I BELIEVE THE LETE, ! AM A JBMITTING FALS IMPRISONMENT. Inder these sta	SUBMITTE WARE TH E INFORMA SEE 18 L States may between to	ED INFORMATI AT THERE A ATION, INCLU U.S.C. 88 1001 include fine 6 months an	ON IS RE DING AND s up to d 5 years.)	SIG	NATURE OF OFFICER OR	AUTHORIZ	L EXECUTIVE LED AGENT	AREA CODE	NUME			

(REPLACES EPA FORM T-40 WI MAY NOT BE USED.)

PERMITTEE NAME ESS (Include if different) NATIONAL POLUT CHARGE ELIMINATION SYSTEM (NPDES) Facility Name/Loc DISCHAR MONITORING REPORT (DMR) CSO (OVER 4.8 MGD IN 84" INTR) WOOD RIVER STP. CITY OF (2.16) (17-19) NAME 12345 (SUBR 06) Form Approved. 501 W. FERGUSON AVE. IL0031852 A01 ADDRESS PERMIT NUMBER DISCHARGE NUMBER F - FINAL OMB No. 2040-0004. P.O. BOX 300 WOOD RIVER. 62095 MAJOR Approval expires 05-31-98 MONITORING PERIOD CSO WOOD RIVER STP, CITY OF OCR 0298 **FACILITY** YEAR MO DAY YEAR MO DAY WOOD RIVER, IL 62095 NO DISCHARGE *** FROM LOCATION 05 80 01 05 80 31 NOTE: Read instructions before completing this form. ATTN: (20-21) (22-23) (24-25) (26-27) (28-29) (30-31) QUANTITY OR CONCENTRATION QUANTITY OR LOADING (3 Card Only) (4 Card Only) FREQUENCY NO. SAMPLE PARAMETER (54-61) (46-53) (54-61) EΧ TYPE ANALYSIS (32-37) AVERAGE UNITS MINIMUM **AVERAGE** MAXIMUM UNITS MUMIXAM (62-63) (64-68) (69-70) BOD, 5-DAY 19) SAMPLE 0 *** **** *** 123 *** MEASUREMENT (20 DEG. C) 女大大大 00310 1 0 0 REPORT PERMIT . DLY When DIS GRAB **** **** **** 大大大大大大 **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG SOLIDS, TOTAL BAMPLE 19) 0 **** 332 **** *** **** MEASUREMENT SUSPENDED *** 00530 1 0 0 REPORT PERMIT *** **** DLY When DIS GRAS **** **** **EFFLUENT GROSS VALUE** REQUIREMENT MG/L MO. AVG COLIFORM, FECAL (13) GR SAMPLE ٥ **** 安安安安安 *** 大大大大大大 5900000 MEASUREMENT GENERAL 大大大大 DAILY WH 74055 1 0 1 # / 100 ML REPORT PERMIT GRAB **** ***** *** **** DISCHR EFFLUENT GROSS VALUE **** REQUIREMENT 376 FLOW, TOTAL ES SAMPLE 3R) Û 69.75 **** *** 大大大大大大 *** MEASUREMENT *** 82220 1 0 0 REPORT PERMIT: **** DAILY CONTIN **** **** **** EFFLUENT GROSS VALUE REQUIREMENT M GAL MO, TOTAL SAMPLE **MEASUREMENT** DECMIT (1) REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED DATE TELEPHONE NAME/TITLE PRINCIPAL EXECUTIVE OFFICER AND AM PAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, ! BELIEVE THE SUBMITTED INFORMATION IS **BRUCE MURPHY** TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE PROJECT MANAGER SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING 09 13 THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 18 U.S.C. . 1001 AND 618 254-4074 05 SIGNATURE OF PRINCIPAL EXECUTIVE 33 U.S.C. es 1319. Penalties under these statutes may include fines up to TYPED OR PRINTED NUMBER YEAR MO DAY \$10,000 and or maximum imprisonment of between 6 months and 5 years.) OFFICER OR AUTHORIZED AGENT COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) c-DMR 9/15/05 NUMBER OF DAYS OF DISCHARGE: 4 RECIEVING WATER: MISSISSIPPI RIVER. BC FLOWS ESTIMATED DUE TO NO FLOW METER. EPA Form 3320-1 (Rev. 8 revious editions may be used. (REPLACES EPA FORM T-40 WHICH NO. T BE USED.) PAGE

PERMITTEE NAM RESS (Include Facility Name/Loc 1 if different) NAME WOOD RIVER STP. C	ITY OF				NAL POLL ISCHAR (2-16)	JISCHARO JONITO	E ELIMINAT		(DMR)	CSO (OVER 4	8 MGD IN	84" IN	TR)		
ADDRESS 501 W. FERGUSON A			_ _	IL0031				101		(SUBR 06)		rm Appi		12345	
P.O. BOX 300	20005			PE	EMUK TIME	JEK .	Į D	SCHARGE!	WHER	F - FINAL MAJOR			1040-0004 expires 0!		
	L 62095		-			NITORING				CSO	•	prova: (R 0298	•)-01-80	
FACILITY WOOD RIVER STP, C		· · · · · · · · · · · · · · · · · · ·	FROM	YEAR	MO	DAY TO	YEAR	MO	DAY		DISCHARGE		***		
LOCATION WOOD RIVER, IL 620	180			(20-21)	(22-23)	V ((28-29)	(30-31)	NOTE: Read in				this form	i.
		(3 Card Only) QL	JANTITY OR LO	ADING	(25.5)	(4 Card On	ıly)	QUÂN	TITY OR COL	NCENTRATION		NO	FREQUEN	SAMP	4 5=
PARAMETER (32-37)	\perp	(46-53)	(54-61				45)	1	46-53)	(34-61)	1	I EX	ANALYS	s TYPE	Ē
		AVERAGE	MAXIM		UNITS	MIN	IMUM	 ^	VERAGE	MUMIXAM	UNITS	102-02	<u> </u>		0)
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	****	****	*		***	k**	47		*****	(19) 0	375	GR	
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NAME/TITLE PRINCIPAL EXECUTIVE OFF		TRY UNDER PENALTY OF LAW						باردادن <u>ين انتيادا</u>			TELEPHO	ONE		OATE	-
BRUCE MURPHY PROJECT MANAGER	ON MY OBTAR TRUE,	INQUIRY OF THOSE INDIV INQUIRY OF THOSE INDIV INQ THE INFORMATION, I & ACCURATE AND COMPLETI ICANT PENALTIES FOR SUBA	IDUALS IMMEDIA BELIEVE THE SUI E. AM AWAR	TELY RES	PONSIBLE FO FORMATION I THERE ARE	OR IS		302							
PROJECT MANAGER	THE PO	DESIBILITY OF FINE AND IMP C. 88 1319. (Penalties un	RISONMENT. SE	E tá U.S.C	2. 86 1001 AND	3	SIG	NATURE C	F PRINCIPA	L EXECUTIVE		4-4074	05	10 1	1
TYPED OR PRINTED	\$10,00	00 and or maximum impr	isonment of be	tween 6 n	nonths and	5 years.)	C	FFICER O	R AUTHORIZ	LED AGENT	AREA N	UMBER	YEAR	MO D	AY
COMMENT AND EXPLANATION OF ANY VIOLAT RECIEVING WATER: MISSISS FLOWS ESTIMATED DUE TO	IPPI RIVER.	NUMBER	R OF DAY	S OF (DISCHA	RGE: 5		(DW	PR 10.1.	5.05	_			

(REPLACES EPA FORM T-40 WHICH NOT BE USED.)

EPA Form 3320-1 (Rev. 8 ///revious editions may be used.

PAGE ___F 1

PERMITTEE NAME/A. *SS (Include Facility Name/Local 'ifferent) NAME WOO VER STP, CITY OF				NAL POLUT ISCHARC (2-16)		E ELIMINAT RING REF		M (NPOES) (I)MR) 9)	CSO (OVER 4.8 MGD IN 84" INTR)						
ADDRESS 501 W. FERGUSON A				IL003				A01		(SUBR 06)	Fo	nn Appr	oved.	12345	
P.O. BOX 300			_	PE	RMIT NUMBER	R		DISCHARGE	NUMBER	F - FINAL			040-0004.		
WOOD RIVER,	L 62095	5			MON	ITORING	PERIOD			MAJOR	•	•	xpires 05-	11-98	
FACILITY WOOD RIVER STP. C				YEAR		DAY	YEAR	MO	DAY	CSO	_	R 0298	٦		
LOCATION WOOD RIVER, IL 620)95		FROM 	05	10	01 10	70	10	31	*** NO!	DISCHARGE		*** ******************************	ie form	
ATTN:		(3 Card Only) Q	JANTITY OR LO	(20-21)	(22-23)	(24-25) (4 Card Oi	(26-27)		(30-31)	NCENTRATION	Marious M	T	FREQUENC	- 1	
PARAMETER		(46-53)	(34-6)		,	(38	-45)		(46-53)	(54-61)		NO EX	. CF	SAI	MPLE
(32-37)		AVERAGE	MAXIMU	M	UNITS	MIN	IMUM	1	VERAGE	MAXIMUM	UNITS		Į	ı	59-70)
BOD, 5-DAY (20 DEG, C)	SAMPLE MEASUREMENT	****	****	*		***	***	12	5	*****	(19) 0	375	GR	
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT		****	•	****		kww.	R	PORT D. AVG	*******	MG/L	1	CALY When	DIS ČRAB	
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	****	****	*		***	***	19	1	****	(19	9) 0	375	GR	
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	***	****		****	***	***		PORT		MG/L	18 g	DLY When	DIS GRAB	
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	*****	****	*		* ***	***	**	***	460000	(1		375	GR	
74055 1 0 1 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	****		****		****			REPORT	# / 10	O ML	DAILY WH DISCHR	GRAE	
FLOW, TOTAL	SAMPLE MEASUREMENT	*****	19.00		(3R)	***	***	**	****	*****		0	375	ES	
82220 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT		REPOR MO. TO	TAL	M GAL	***	***	1	****	****	**:	**	DAILY	S COH	IN S
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	SAMPLE MEASUREMENT														
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NAME/TITLE PRINCIPAL EXECUTIVE OFFIC		IFY UNDER PENALTY OF M FAMILIAR WITH THE IN					_		/	.1	TELEPH	ONE		DATE	1
BRUCE MURPHY PROJECT MANAGER	OBTAIN TRUE,	INQUIRY OF THOSE IN NING THE INFORMATION, ACCURATE AND COMP ICANT PENALTIES FOR SI	I BELIEVE THE LETE. AM A	SUBMITT	ED INFORMATI HAT THERE A	ion is Re	6	on	- pe	by					
33 U.S.C. as 1319. (Penallies ung			IMPRISONMENT.	SEE 18	U.S.C. 55 1001	AND	S	GNATURE	OF PRINCIP	AL EXECUTIVE		54-407		11	08
TYPED OR PRINTED	prisonment of	hetween	6 months an	d 5 years.)		OFFICER	OR AUTHOR	IZED AGENT	AREA CODE	NUMBER	YEAR	МО	DAY		
COMMENT AND EXPLANATION OF ANY VIOLATIC	` *	·							_						
RECIEVING WATER: MISSIS			BER OF D	AYS (OF DISCI	HARGE:	2	<	2-D1	MR 11.8	.05	BC			

EPA Form 3320-1 (Rev. 8-95)Prévious editions may be used.

(REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

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Facility Name/L. A if different) NAME WOOD RIVER STP, CI	TY OF				SCHAR (2-16)			PORT (DMR)	CSO (OVER 4.	.8 MG	D IN 84	" INT	R)			
ADDRESS 501 W. FERGUSON A				L0031	 			A01	(SUBR 06)		Form		•	12	2345	
P.O. BOX 300				PE	RMIT NUMBER		0	SCHARGE NUMBER	F - FINAL		OMB N	Vo. 20	40-0004	١.		
WOOD RIVER, IL	62095				MON	ITORING F	ERIOD		MAJOR		Appro	val e;	cpires 0	5-31-	-98	
FACILITY WOOD RIVER STP, CI	TY OF			YEAR	MO	DAY	YEAR	MO DAY	CSO		OCR 0	298				
LOCATION WOOD RIVER, IL 620	95		FROM	05	·	01 TO	05	11 30	*** NO		ARGE	X	***	- 41-l.	e larm	
ATTN:		(3 Card Only) Q	UANTITY OR LOA		(22-23) (24-25) (4 Card Only	(26-27)	(28-29) (30-31) QUANTITY OR CON		SITUCI	rons pero		FREQUEN			٦
PARAMETER		(46-33)	(54-61			(38-4		(46-53)	(54-61)			NO. EX	OF ANALYS		SAMPLE TYPE	
(32-37)		AVERAGE	MAXIMUI	,	UNITS	MINIM	UM	AVERAGE	MUMIXAM		UNITS	(62-63)	1		(69-70)	_
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	****	****			大大大大	k*	112	****	(19)	0	375	G	or .	
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	***	****		***	****		REPORT MO. AVG	*****		MG/L		DLY When	CHS	3RAB	
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	***	****	•		***	k*	134	****	(19)	0	376	c	3R	
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	****		****	****	**	REPORT MO. AVG	***	,	VG/L		DLY When	DIS C	3RAB	,
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	****	*****			****	kk	***	700000		(13)	0	375	c	3R	
74055 1 0 1 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	****		****	***	k A	****	REPORT	#	/ 100 M		DAILY WH DISCHR	100	GRAS	
FLOW, TOTAL	Sample Measurement	*****	25.00		(3R)	***	R ft	***	****			0	375	E	E8	
82220 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	A CONTRACTOR OF STATE	REPOR MO. TO		M GAL	***		***	****		***		DAILY	C	CONTIN	
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NAME/TITLE PRINCIPAL EXECUTIVE OFFICE	AND AN	IFY UNDER PENALTY OF LA A FAMILIAR WITH THE INFO	RMATION SUBMETT	ED HEREN	I: AND BASED			, 1		ד	ELEPHONE			OAT	E	
BRUCE MURPHY PROJECT MANAGER	OBTAIN TRUE, SIGNIFF THE PC	INCURRY OF THOSE INDIVING THE INFORMATION, I I ACCURATE AND COMPLET CAUT PENALTIES FOR SUBNOSSIBILITY OF FINE AND IMP	BELIEVE THE SUB E. (AM AWARI MITTING FALSE INT PRISONMENT, SEE	METTED INI E THAT TH FORMATION E ## U.S.C.	FORMATION IS HERE ARE I, INCLUDING 18 1001 AND		Sign	Marture of Principal	EXECUTIVE	618_	254-4	074	05	12	06	
TYPED OR PRINTED	\$10,00	C. es 1318. (Penalties w O and or maximum impr	naer mese statul isonment of bet	ween 6 m	ncivae fines i conths and S	ap to years.)	c	PFICER OR AUTHORIZ	ED AGENT	AREA CODE	NUMB	ER	YEAR	OM	DAY	
COMMENT AND EXPLANATION OF ANY VIOLATION	8(Reference all attach	nents here)														_
RECIEVING WATER: MISSISSI			R OF DAY	S OF E	DISCHAR	GE: 2	(e-DMR	12.7.0	5	BC					

EPA Form 3320-1 (Rev. 8 Tevious editions may be used.

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TYPED OR PRINTED	\$10,00	0 and or maximum impl	rizonment of be	tween 6 n	nonths and	years.)		OFFICER C	OR AUTHORIZ	ZED AGENT	AREA	NUM	BER	YEAR (МО	DAY

MONITORING PERIOD: 01 1 2002 NO CSO DISCHARGES OCCURRED: MAME: CITY OF WOOD RIVER WASTEWATER TREATMENT FAC. PERMIT NUMBER: ILOO 31852 STATE AID ROAD ADDRESS: 559 CITY: WOOD RIVER STATE: IL ZIP CODE: 62095 TELEPHONE: 6/8-254-4074 **ESTIMATED** ESTIMATED **CSO OUTFALLS THAT DISCHARGED: FSTIMATED** RAIN DURATION **AMOUNT OF** DURATION **EVENT** OF CSO RAINFALL OF EVENT OUTFALL START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): (IN HOURS): NUMBER: DATE: (IN HOURS): 01.29.02 BAN \$21 2.2 MISSISSIPPI RIVER 4.5 DOIA HAME/TITLE PRINCIPAL EXECUTIVE OFFICER BRUCE MURPHY 1202 PROJECT MANAGER TTPED OR PRINTED This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your

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MONITORING PERIOD: 02 12002 NO CSO DISCHARGES OCCURRED: MONTH ME: CITY OF WOOD RIVER REGIONAL W.W.T.F. PERMIT NUMBER: IL 0031852 ADDRESS: 559 STATE AID ROAD STATE: IL ZIP CODE: 62095 TELEPHONE: 618-254-4074 CITY: WOOD RIVER **ESTIMATED** CSO OUTFALLS THAT DISCHARGED: ESTIMATED **ESTIMATED** RAIN **DURATION** AMOUNT OF DURATION EVENT OF CSO RAINFALL **OUTFALL** OF EVENT START **OUTFALL DESCRIPTION: DISCHARGE** (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): AÓI MISSISSIPPI RIVER 0.7 21.5 2-19-02 MAME/TITLE PRINCIPAL EXECUTIVE OFFICER DATE

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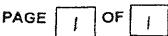
IL 532 2471 WPC 659 Jan-96

BRUCE MURPHY

TECT MANAGER

TYPED OR PRINTED





03

SIGNATURE OF PRINCIPAL EXECUTIVE

OFFICER OR AUTHORIZED AGENT

12 02

CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD: 03 1200Z NO CSO DISCHARGES OCCURRED: YEAR MONTH PERMIT NUMBER: IL 0031852 City of Wood River Regional W.W.T.F. RESS: 559 State Aid Road STATE: IL ZIP CODE: 62095 TELEPHONE: 618-254-4074 CITY: Wood River **ESTIMATED** ESTIMATED I CSO OUTFALLS THAT DISCHARGED: **ESTIMATED** RAIN DURATION AMOUNT OF DURATION **EVENT** OF CSO RAINFALL OUTFALL OF EVENT START OUTFALL DESCRIPTION: DISCHARGE (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): Ø.45 03/02 A01 Mississippi River B. 55 03/15 A01 Mississippi River 03 pr 03/28 0.05 A01 Mississippi River A01 Míssissippí River NEVITTLE PRINCIPAL EXECUTIVE OFFICER PATE

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Bruce Murphy

Project Manager

C37MIPS SO C3577



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SIGNATURE OF PRINCIPAL EXECUTIVE

OFFICER OR AUTHORIZED AGENT

of 1

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MONITORING PERIOD: APRIL / 2002 MONTH YEAR NO CSO DISCHARGES OCCURRED:

√ME: €	City of Wood	River Regiona	el W.W.T.F	PERMI	T NUMBER: IL 0031852	
ADDRESS	: 559 State	Aid Road				
CITY: 1	Vood River	s	TATE: IL	ZIP CODE: 620	95 TELEPHONE: 618-2	254-4074
RAIN	ESTIMATED	ESTIMATED AMOUNT OF		FALLS THAT DISCHA	ARGED:	ESTIMATED DURATION
START DATE:	DURATION OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCR	RIPTION:	OF CSO DISCHARGE (IN HOURS):
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This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 ½, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

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MONITORING PERIOD: 05 / 2002 NO CSO DISCHARGES OCCURRED: ME: City of Wood River Regional W.W.T.F. PERMIT NUMBER: IL 0031852 ADDRESS: 559 State Aid Road ZIP CODE: 62095 TELEPHONE: 618-254-4074 STATE: IL CITY: Wood River ESTIMATED CSO OUTFALLS THAT DISCHARGED: ESTIMATED! **ESTIMATED** RAIN DURATION AMOUNT OF DURATION **EVENT** OF CSO RAINFALL OF EVENT **OUTFALL** START OUTFALL DESCRIPTION: DISCHARGE (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): 2.5 8.5 0.65 5.6.0Z A01 Mississippi River 3.5 2.85 5.7.0Z A01 Mississippi River 16.5 16 4.4 A01 5.12.02 Mississippi River 2.25 3.75 A01 5.16.02 Mississippi River 8.5 0.8 A01 7.02 Mississippi River A01 Mississippi River I CEPTIEV UNDER REMAIN OF LAW THAT I HAVE REPSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED REPEN AND SASED ON MY INQUIRY OF THOSE PROVIDINGS MANDATEUR RESPONDENCE FOR CHARACTER THE INFORMATION IS BLUEVE THE SUBMITTED PROPERTIES AND SOCIEDATE AND COMMETTE I AM AWARE THAT THERE ARE SOCIEDATE AND COMMETTE AS COMMETTED AND COMMETTE AND COMMETTE AS COMMETTED REPORTATION OF COMMETTED AND COMMENT OF COMMETTED AND COMMETTED THE SECOND AND COMMETTED THE SECOND AND COMMETTED AND COMMENT OF COMMETTED AND COMMENT OF COMMENT OF COMMENT OF COMMETTED AND COMMENT OF COM AMESTITUS PRINCIPAL EXECUTIVE OFFICER DATE Bruce Murphy PCT Manager 13 OZ CETAINS SO CEST OFFICER OR AUTHORIZED AGENT This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 %, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your

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MONITORING PERIOD: June 1 2007 MONTH YEAR

NO CSO DISCHARGES OCCURRED:

ME:	City of Wood	River Regiona	al W.W.T.F.	PERMIT NUMBER: IL 0031852	
ADDRESS					· · · · · · · · · · · · · · · · · · ·
AUUKEG			TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-29	54-4074
CITY:	Wood River ESTIMATED	ESTIMATED	CSO OUTF	FALLS THAT DISCHARGED:	ESTIMATED DURATION
EVENT START DATE:	DURATION OF EVENT (IN HOURS):	AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
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6/11/02	C.15	1.75	A01	Mississippi River	2 25
6125/02	2.0	0.30	A01	Mississippi River 🚁	1.25
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MONITORING PERIOD: 07 12002 NO CSO DISCHARGES OCCURRED: MONTH YEAR NAME: Woon Kiver Reasional WWTF PERMIT NUMBER: 710031852 FERGUSON AUC P.O. Box 300 ADDRESS: 501 STATE: IL ZIP CODE: 62095 TELEPHONE: 618. 254-4074 CITY: Was **ESTIMATED ESTIMATED CSO OUTFALLS THAT DISCHARGED: ESTIMATED** RAIN DURATION DURATION AMOUNT OF **EVENT** OF CSO RAINFALL OF EVENT OUTFALL START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): (IN HOURS): NUMBER: DATE: (IN HOURS): 8.25 0.33 001A VIISSTSSTPPI a.25 7/26/02 IVER I CEPTIPY UPDIEN PERMITY OF LAW YINGT I HAVE PRINCIPALLY FRANCED AND AN FAMILIAN WITH THE PETTINATURE SQUARTED HERE HERE FOR CHIMNED THE PETTINATURE SQUARTED HERE HERE FOR CHIMNED THE PETTINATURE I BELLEVE THE SQUARTED PETTINATURE FOR ANY REPORTED HERE FOR ANY REPORTED HERE FOR ANY REPORT OF THE PETTINATURE OF THE PETTINATURE ANY REPORT OF THE PETTINATURE OF THE PETTINATURE FOR THE PETTINATURE AND THE PETTINATURE OF THE PETTINATURE OF THE PETTINATURE OF THE PETTINATURE OF THE PETTINATURE AND THE PETTINATURE OF THE PETTINATURE MAHE/TITLE PRINCIPAL EXECUTIVE OFFICER DATE 09 02 This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 %, Section 1039. Disclosure

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 %, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

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NO CSO DISCHARGES OCCURRED: MONITORING PERIOD: AUG 1 2007 MONTH YEAR PERMIT NUMBER: 11 00 31852 WWTE NAME: War Ruse P.OBOX 300 ADDRESS: SOI II) Ferguson ZIP CODE: 12095 TELEPHONE: 618-254-1457 STATE: ___ CITY: WOOD KIVER ESTIMATED **CSO OUTFALLS THAT DISCHARGED:** ESTIMATED **ESTIMATED** RAIN DURATION AMOUNT OF **DURATION EVENT** OF CSO RAINFALL **OUTFALL** OF EVENT START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): 5.0 AO I Mississippi 2.05 8.11.0⊃ 1.0 0.5 AOI 1.0 8.16.02 4.0 8 18.02 ANI 3.5 0.75 8.19.02 AOI 1.0 1.5 1.25 8 23 02 Mississippi Z.0 AOI 0.35 1.0 DATE Brucz Murphy 02 09 02 Project MIGHATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORISED AGENT This Agency is authorized to require this information under tillnote Revised Statutes, 1991, Chapter 111 1/2, Section 1039. Disclosure of this Information is required under that Section. Fallure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Managament Center.

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MO	NITORING PER	MONTH	2002 YEAR	NO CSO	DISCHARGES OCCUI	RRED:
NAME: C	ity of in	co River	STP	PERM	IT NUMBER:	
	s: 501 W.					
	opp River		TATE: エレ	ZIP CODE: ω	045 TELEPHONE: 461	8.254.7014
RAIN	ESTIMATED DURATION	ESTIMATED AMOUNT OF		ALLS THAT DISCH	ARGED:	ESTIMATED DURATION
EVENT START DATE:	OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESC	RIPTION:	OF CSO DISCHARGE (IN HOURS):
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This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 ½, Section 1039. Disclosure of this information is required under that Section. Fallure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

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MC	NITORING PER	NOD: /O /	2007 YEAR	NO CSO	DISCHARGES OCC	URRED:
NAME:	City of Woo	on River 5	-ρ.	PERM	IT NUMBER:	
				P.D. Box 300		
CITY:	Doog River	\$	TATE: エレ	ZIP CODE: ن	3095 TELEPHONE: (8.254.4074
RAIN	ESTIMATED	1	i	FALLS THAT DISCH	ARGED:	ESTIMATED DURATION
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MONITORING PERIOD: Nov. 12002 NO CSO DISCHARGES OCCURRED: MONTH YEAR NAME: CITY OF WOOD RIVER WWTF PERMIT NUMBER: IL 0031852 ADDRESS: 559 STATE AID ROAD STATE: IL ZIP CODE: 62095 TELEPHONE: 618.254.4074 CITY: WOOD RIVER **ESTIMATED** ESTIMATED | CSO OUTFALLS THAT DISCHARGED: **ESTIMATED** RAIN DURATION **AMOUNT OF** DURATION **EVENT** OF CSO RAINFALL OF EVENT **OUTFALL** START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): MISSISSIPPI RIVER 0.45 AO1 11-5-2002 I CEPTEV UNDER PENALTY OF LAW THAT I HAVE PERSONALLY BANAMED AND AND AND FAMILIAR WITH THE HAPPED SUBMITTED SUBMITTED SUBMITTED AND BASED OF HAVE PROGRESS OF THE PERSONAL OF THAT BE MODIFIED AND BASED OF THE HEIGHBOARD AND ADDRESS OF THE MERCHANDER FOR BELLEVE 1-18 SUBMITTED HOSDINGSTON IS SUBMITTED AND COMPLETE I AND ANNAMY THAT THERE AND COMPLETE I AND ANNAMY THAT THERE AND THE MERCHAND SPRANTISCH FOR SUBMITTED AND AND ADDRESS OF THE PERSONALTISC PERSONNEL OF THE AND ADDRESS OF THE PERSONNEL THAT PROGRESS OF THE PENSONNEL THAT PROGRESS OF THE PENSONNEL THAT PROGRESS OF THE PENSONNEL THAT PENSONNEL THAT PENSONNEL THE PENSONNEL THE PENSONNEL THE PENSONNEL THAT PENSONNEL THE PENSONNEL THAT PENSONNEL THE PENSONNEL THAT PENSONNEL THE PENSONNEL THAT PENSONNEL THE PENS DATE Bruce Murphy 02 Project Manager This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 ½, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

IL 532 2471 WPC 659 Jan-96 PAGE

MONITORING PERIOD: Dec / Zcoz

NO CSO DISCHARGES OCCURRED:

NAME: (ty of wood	2 wer st	P	PERM	IIT NUMBER: L cc 3 185	<u>د</u>		
ADDRESS	: Sol <u>L≟_i</u>	Ferencia 1	Aue.	P.O BOX 300				
CITY: 12)	po River				CAS TELEPHONE: 613	354 <u>.</u>	4074	
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		Jana River				95 TELEPHONE: 618.	as4 · 4074
,	RAIN	ESTIMATED	ESTIMATED	CSO OUTF	ALLS THAT DISCH	ARGED:	ESTIMATED
	EVENT START DATE:	1	AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESC	RIPTION:	DURATION OF CSO DISCHARGE (IN HOURS):
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		This Agency is authori	zed to require this info	simation under Illi	nois Revised Statutes, 199	1, Chapter 111 %, Section 1039. Dis-	closure

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, /	M	ONITORING PER	NOD: OZ I	C3 YEAR	NO CSO	DISCHARGES OCCUR	RED:		
	NAME: (CETY OF WE	OD RIVER	STP	PERM	IT NUMBER: IL 6031	9 5 Z		
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	CITY:	Joos River	S	TATE: TC	ZIP CODE: 62	তণ্ড TELEPHONE: 613.			
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application being denied. This form has been approved by the Forms Management Center.

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MONITORING PERIOD: 03/2003 NO CSO DISCHARGES OCCURRED:

ME:	City of Wood	River Regiona	al W.W.T.F.	PERMIT NUMBER: IL 0031852	
	S: 559 State				
CITY:	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-2	54-4074
RAIN	AIN ESTIMATED ESTIMATED CSO OUTFALLS THAT DISCHARGED:				
START DATE:	DURATION OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
3-13	2	8.6	A01	Mississippi River	1.25
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3-19	3.75	Ø.45	A01	Mississippi River	2.75
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3-20	0.10	Ø. 18	A01	Mississippi River	Ø.9
3-28	7.8	ø.3ø	A01	Mississippi River *	3.B
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MONITORING PERIOD: APRIL 1 2003

NO CSO DISCHARGES OCCURRED:

ME:	City of Wood	River Regiona	el W.W.T.F	. PERMIT NUMBER: IL 003185	2
ADDRES	S: 559 State	Aid Road			
CITY:	Wood River	S	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618	-254-4074
RAIN EVENT	ESTIMATED DURATION	ESTIMATED AMOUNT OF		FALLS THAT DISCHARGED:	ESTIMATED DURATION OF CSO
START DATE:	OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL NUMBER:	OUTFALL DESCRIPTION:	DISCHARGE (IN HOURS)
4.4.03		0.35	A01	Mississippi River	2
4.20.03	Z.5	0.75	A01	Mississippi River	2.5.
4.24.03	(0	0.70	A01	Mississippi River	4
4.25.03	4	0.60	A01	Mississippi River	4
					4-
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			A01	Mississippi River	-
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	<u> </u>	31 WEC 1 1719 12	"Endired under trade :	MONATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	MO . DAY TEAR

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 %, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being benied. This form has been approved by the Forms Management Center.

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MONITORING PERIOD: MAY 1 2003 NO CSO DISCHARGES OCCURRED: E City of Wood River Regional W.W.T.F. PERMIT NUMBER: IL 0031852 ADDRESS: 559 State Aid Road STATE: TT. ZIP CODE: 62095 TELEPHONE: 618-254-4074 CITY: Wood River **ESTIMATED** ESTIMATED | CSO OUTFALLS THAT DISCHARGED: **ESTIMATED** RAIN DURATION AMOUNT OF DURATION **EVENT** OF CSO RAINFALL OF EVENT OUTFALL START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): 1.2 3.5 5.4 AO1 Mississippi River 0.3 2.5 5.8 A01 Mississippi River 1.15 3 5.10 A01 Mississippi River 1.0 B.45 5.30 2.. A01 Mississippi River -- CITTLE -- MINGIPAL EXECUTIVE OFFICER 3 A T E Sruce Murphy 10:03 ct Manager C3TMIN #C C3417 OFFICER OF AUTHORIZED AGENT 34. TEAP This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 ½, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being cenied. This form has been approved by the Forms Management Center.

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M	ONITORING PER	MONTH	YEAR	NO CSO DISCHARGES OCCUR	RED:
AE:	City of Wood	River Regiona	al W.W.T.F	PERMIT NUMBER: IL 0031852	
: :ADDRES	S: 559 State_	Aid Road			
:CITY:	Wood River	s	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-	254-4074
RAIN EVENT	ESTIMATED DURATION	ESTIMATED AMOUNT OF		FALLS THAT DISCHARGED:	ESTIMATE:
START DATE:	OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL NUMBER:	I CHALLINES BELLING	OF CSO DISCHARG (IN HOURS)
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6.12.03	2.5	1.45	A01	Mississippi River	2.
6.26.03	8	3.45	A01	Mississippi River	7
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NO CSO DISCHARGES OCCURRED: MONITORING PERIOD: C7 / 03 MONTH YEAR PERMIT NUMBER: IL 0031852 City of Wood River Regional W.W.T.F. ADDRESS: 559 State Aid Road STATE: IL ZIP CODE: 62095 TELEPHONE: 618-254-4074 CITY: Wood River ESTIMATED CSO OUTFALLS THAT DISCHARGED: ESTIMATED ESTIMATED RAIN DURATION AMOUNT OF DURATION **EVENT** OF CSO RAINFALL OF EVENT **OUTFALL** START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): 1.25 A01 Mississippi River 2.0 5.5 7/18/03 À01 1.0 0.35 Mississippi River 7/29/03 A01 Mississippi River A01 Mississippi River Mississippi River A01 A01 Mississippi River A01 Mississippi River A01 Mississippi River **TOA** Mississippi River A01 Mississippi River A01 Mississippi River BILICE MUIDRY

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TOPON OF BRINTED 3 A T E 08 106 03 SIGNATURE OF PRINCIPAL EXECUTIVE

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 %, Section 1039, Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being benied. This form has been approved by the Forms Management Center

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MONITORING PERIOD: 08 12003

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PC 659 Jan-96

NO CSO DISCHARGES OCCURRED:

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ME: City of Wood River Rectional W.W.T.F. PERMIT NUMBER: IL 0031852 ADDRESS: 559 State Aid Pood CITY: Wood River STATE: IL ZIP CODE: 62095 TELEPHONE: 618-254-507; RAIN ESTIMATED DURATION OF ESTIMATED DURATION OF CSO OUTFALLS THAT DISCHARGED: DURATION OF CSO OUTFALL START (IN HOURS): (IN INCHES): NUMBER: OUTFALL DESCRIPTION: OISCHARGE (IN HOURS) A01 Mississippi River			MUNTH	IEAR		
CITY: Wood River STATE: ZIP CODE: 62095 TELEPHONE: 618-254-407; RAIN	ME:	City of Wood	<u>River Regiona</u>	W.W.T.F.	PERMIT NUMBER: IL 0031852	
RAIN ESTIMATED DURATION AMOUNT OF RAINFALL (IN HOURS):	ADDRESS	S: 559 State	Aid Road			
RAIN EVENT (NO FEVENT (IN INCHES): MAOUNT OF CANONIC (IN INCHE	icity:	Wood River	<u> </u>	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-	254-4074
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MONITORING PERIOD: Sept / 2003 MONTH YEAR

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NO CSO DISCHARGES OCCURRED:

ME:	City of Wood	River Regiona	el W.W.T.F.	PERMIT NUMBER: IL 0031852	· · · · · · · · · · · · · · · · · · ·	
ADDRES	S: <u>559 State</u>	Aid Road				
	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-2	54-4074	
RAIN	ESTIMATED	ESTIMATED AMOUNT OF	1	FALLS THAT DISCHARGED:	ESTIMATED	
START DATE:	OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):	
9.1.03	7.5	1.85	A01	Mississippi River	5.0	
9.26.03	3,0	, 85	A01	Mississiopi River	1.5	
			A01	Mississippi River		
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**	1		A01	Mississippi River		
			A01	Mississippi River	-	
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MONITORING PERIOD: Det 12003 NO CSO DISCHARGES OCCURRED: MONTH YEAR NAME: City of Wood River Regional W.W.T.F. PERMIT NUMBER: IL 0031852 ADDRESS: 559 State Aid Road STATE: IL ZIP CODE: 62095 TELEPHONE: 618-254-4074 CITY: Wood River **ESTIMATED** CSO OUTFALLS THAT DISCHARGED: ESTIMATED **ESTIMATED** RAIN DURATION AMOUNT OF DURATION **EVENT** OF CSO RAINFALL OF EVENT OUTFALL START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): 3.0 2.5 0.45 A01 Mississippi River 10.9.03 A01 Mississippi River A01 Mississippi River

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 %, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being cented. This form has been approved by the Forms Management Center.

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te Murphy

bject Manager

ANALYTICE PRINCIPAL EXECUTIVE OFFICER

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CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD: Nov 1 2003

MONTH YEAR

NO CSO DISCHARGES OCCURRED:

ME:	City of W∞d	River Regiona	d W.W.T.F.	PERMIT NUMBER: IL 0031852	
ALDRESS	3: 559 State	Aid Road			
1	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-2	254-4074
RAIN	ESTIMATED	ESTIMATED AMOUNT OF	Ē.	FALLS THAT DISCHARGED:	ESTIMATED DURATION
EVENT START DATE:	DURATION OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
11-1-03	7	Ø. 5	A01	Mississippi River .	2
·	, ,	4. Ø	****		4
11.17.03	6-5	7.8	A01_	Mississippi River	1 1
11-18-03	B.5	8.95	A01	Mississippi River	2.5
			·	* Same rain event as 11.17.03 however, * event covered two sampling days	
			A01	Mississippi River	
			A01	Mississippi River	
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of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

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OF 1

MONITORING PERIOD: DEC 12003

MONTH YEAR

NO CSO DISCHARGES OCCURRED:

ME	: City of Wood	River Region	al W.W.T.F	. PER	MIT NUMBER: IL 0031852	
j	ESS: 559 State					
CITY:	Wood River		TATE: IL	ZIP CODE: 6	2095 TELEPHONE: 618-	254-4074
RAIN	ESTIMATED	ESTIMATED AMOUNT OF		FALLS THAT DISC	HARGED:	ESTIMATED DURATION
EVEN STAR DATE	T OF EVENT	RAINFALL (IN INCHES):	OUTFALL	I OUTHALL DESC	CRIPTION:	OF CSO DISCHARGE (IN HOURS):
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		<u> </u>	A01	 Mississippi Riv	er .	
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			A01	Mississippi Rive	er	
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This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 ½, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

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PAGE 1 OF

CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD: 01 / 2004

MONTH YEAR

NO CSO DISCHARGES OCCURRED:

ME:	City of Wood	River Regiona	al W.W.T.F	. PERI	MIT NUMBER: IL 003185	2 .
ADDRESS	6: 559 State	Aid Road				
	Wood River		TATE: IL	ZIP CODE: 6	2095 TELEPHONE: 618-	-254-4074
RAIN ESTIMATED ESTIMATED CSO OUTFALLS THAT DISCHARGED:					HARGED:	ESTIMATED DURATION
EVENT START DATE:	DURATION OF EVENT (IN HOURS):	AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	I OUTEAH DESC	CRIPTION:	OF CSO DISCHARGE (IN HOURS):
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01-17-04	2.0	ø.7	A01	Mississippi Riv	er	1.0
			A01	Mississippi Riv	er	
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12004 MONITORING PERIOD: NO CSO DISCHARGES OCCURRED: YEAR PERMIT NUMBER: IL 0031852 City of Wood River Regional W.W.T.F. ME: 559 State Aid Road STATE: IL ZIP CODE: 62095 TELEPHONE: 618-254-4074 CITY: Wood River ESTIMATED ESTIMATED | CSO OUTFALLS THAT DISCHARGED: **ESTIMATED** RAIN DURATION AMOUNT OF DURATION EVENT OF CSO RAINFALL OF EVENT **OUTFALL** START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): NUMBER: (IN HOURS): DATE: (IN HOURS): D.7 2.5 2.2.04 A01 Mississippi River LAMOUTINE PRINCIPAL EXECUTIVE OFFICER Bruce Murphy Project Manager

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 ½. Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being cented. This form has been approved by the Forms Management Center.

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OFFICER OF AUTHORIZED AGENT

PAGE 1

OF 1

MONITORING PERIOD: MARCH 1 2004 NO CSO DISCHARGES OCCURRED: MONTH YEAR City of Wood River Regional W.W.T.F. PERMIT NUMBER: IL 0031852 559 State Aid Road ADDRESS: STATE: IL Z!P CODE: 62095 TELEPHONE: 618-254-4074 CITY: Wood River ESTIMATED ESTIMATED | CSO OUTFALLS THAT DISCHARGED: **ESTIMATED** RAIN DURATION AMOUNT OF DURATION **EVENT** OF CSO RAINFALL OF EVENT OUTFALL START **OUTFALL DESCRIPTION:** DISCHARGE (IN INCHES): (IN HOURS): NUMBER: DATE: (IN HOURS): 1.55 03.04-04 A01 Mississippi River B. 35 2.5 A01 Mississippi River 03.25.04 1.25 A01 03.26.04 Mississippi River A01 Mississippi River BILICE MUTDAY

DIGHT MANAGET

DIGHT SATE

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 1/2, Section 1039, Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Manager

532 2471 90 559 Jan-96 PAGE

OF

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CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD: APRIL 1 2004 MONTH YEAR

NO CSO DISCHARGES OCCURRED:

ME:	City of Wood	River Regiona	al W.W.T.F	. PERMIT NUMBER: IL 0031852	
ADDRESS	: 559 State	Aid Road		·	
CITY:	Wood River	s	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-2	254-4074
RAIN EVENT	AIN ESTIMATED ESTIMATED CSO OUTFALLS THAT DISCHARGED: VENT DURATION AMOUNT OF				
START DATE:	OF EVENT (IN HOURS):	(IN INCHES):	1	OUTFALL DESCRIPTION:	DISCHARGE (IN HOURS):
4-24.04	10.5	1.2	A01	Mississippi River	5
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4.3004	1.5	1.6	A01	Mississippi River	2.
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			A01	Mississippi River	
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			A01	Mississippi River	
ME/TITLE PRINCE	PAL EXECUTIVE OFFICE	ER! (SEPTION SPOKE PER	water the law that	I man's ognisomatic Examples	3540
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CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD: 05 12004

0 532 2471 PC 559 Jan-96 NO CSO DISCHARGES OCCURRED:

DE:	City of Wood	River Region	el W.W.T.F.	PERMIT NUMBER: IL 003	1852	
, ——	S: 559 State					
	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 6	518-254-4074	
RAIN	ESTIMATED	ESTIMATED				
START DATE:	DURATION OF EVENT (IN HOURS):	AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):	
5.12.04	2.	8.2	A01	Mississippi River		
5.13.04	21	3.2	A01	Mississippi River	20	
5-19-04	5	<i>B</i> .85	A01	Mississippi River	3.5	
5.25.04	6	ø.9	A01	Mississippi River	4,25	
5-6-04	6	1.9	A01	Mississippi River	4	
5.27.04	4.5	<i>B</i> .75	A01	Mississippi River	6	
5-30-64	3	Ø. 75	A01	Mississippi River	3	
			A01	Mississippi River		
			A01	Mississippi River		
	-		A01	Mississippi River		
			A01 1	Mississippi River		
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MONITORING PERIOD: TWE 12004 NO CSO DISCHARGES OCCURRED:

		MONTH	YEAR		
DE:	City of Wood	River Regiona	al W.W.T.F	. PERMIT NUMBER: IL 0031852	w
ADDRESS	3: 559 State	Aid Road			
CITY:	Wood River	S	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-2	254-4074
RAIN	ESTIMATED	ESTIMATED	f	FALLS THAT DISCHARGED:	ESTIMATED DURATION
EVENT START DATE:	DURATION OF EVENT (IN HOURS):	AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	I DELIEALI DESCRIPTION'	OF CSO DISCHARGE (IN HOURS):
6.9.04	6	0.35	A01	Mississippi River	1,5
6-15-04	Ø.5	<i>D</i> .5	A01	Mississippi River	1,5
6-16-04	6	3.3	A01	Mississippi River	5
.	<u> </u>		A01	Mississippi River	
9-1			A01	Mississippi River	
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		·	A01	Mississippi River	
			A01	Mississippi River	
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American Control of the Control of t			A01	Mississippi River	
AVATLE MING	PAL EXECUTIVE OFFIC	AND 40 FAMELAR WI	THE MEQUALITY	SANTE MERSONALLY CRAMMED SANTE MERSONALLY CRAMMED SANTE MERSON AND BASES 30 M	OATE
refret Ma		THUE ACCUMATE A SCHICKANT PENALTY THE POSSBALTY OF	AND COMPLETE ES FOR SUBMITTING FIRE AND MARRIED ADDRESS WINES	THE SUPPORTED INFORMATION S AND AVAIRE THAT THERE ARE THUSE IS USE \$ 1001 AND SIGNATURE OF PRINCIPAL EXECUTIVE SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT OFFICER OR AUTHORIZED AGENT	07 13 04
Th	is Agency is authorize	d to require this infor	nation under Mir	nois Revised Statutes, 1991, Chapter 111 ½, Section 1039, Discissor may prevent this form from being processed and could result in	osure

application being denied. This form has been approved by the Forms Management Center. 532 2471

Jan-95

OF

MONITORING PERIOD: JULY 1 2 004

MONTH YEAR

NO CSO DISCHARGES OCCURRED:

JE:	City of ₩oœd	River Regiona	l W.W.T.F.	PERMIT NUMBER: IL 0031852	
1	6: 559 State	-			
	wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-25	54-4074
RAIN	ESTIMATED	ESTIMATED	CSO OUT	FALLS THAT DISCHARGED:	ESTIMATED DURATION
EVENT START DATE:	DURATION OF EVENT (IN HOURS):	AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
7.6.04	8-5	1.1	A01	Mississippi River	4
				1	- 1
7.30.04	8.5	2.7	<u>A01</u>	Mississippi River	<u>+</u>
			A01	Mississippi River	
			A01	Mississippi River	
	<u> </u>		A01	Mississippi River	
			A01	Mississippi River	
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1			A01	Mississippi River	,
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			A01	Mississippi River	
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<u>i</u>			A01	Mississippi River	
HELTTE PHINC	PAL EXECUTIVE OFFIC	ER I CERTEY JOSE PE	HALTY OF LAW THE	T - MAYE PERSONALLY EXAMPED	DATE:
Bruce Muri	anager	AND AM FAMELAR WE ON AM HOULEY OF ORTHANNES THE MED TRUE ACCUMANTE A SOMPCANT REMAIT THE MISSIBILITY OF	THE THE INFORMATION THOUSE PHOTODIALS THOUSE PHOTODIALS THOUSE PHOTODIALS THOUSE PHOTODIALS THE AND MARROUSE THE PHOTODIALS THOUSE	SUBSTITUTION AND BASED THE REPORTED AND BASED THE REPORT OF AND BASED	18 12 04
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CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD: August 2004 MONTH YEAR

1 532 2471

PC 559 Jan-96

NO CSO DISCHARGES OCCURRED:

PAGE

ME:	City of Wood	River Regiona	al W.W.T.F.	PERMIT NUMBER: IL 0031852	
A RES	S: 559 State	Aid Road			
	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-	254-4074
RAIN	ESTIMATED	ESTIMATED		FALLS THAT DISCHARGED:	ESTIMATED DURATION
START DATE:	OF EVENT (IN HOURS):	AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
8-4	2	8.65	A01	Mississippi River	2
8-23	1.5	0.45	A01	Mississippi River	2
8.24	3.25	D.5	A01	Mississippi River	1.5
8.25	2.5	1.25	A01	Mississippi River	2.5
		•	A01	Mississippi River	
			A01	Mississippi River	
		·			
<u> </u>	<u> </u>		A01	Mississippi River	
			A01	Mississippi River	
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Bruce Mur Project M	phy	ANG AM FAMILIAR WE ON MY MOUNTY OF OSTAMING THE MED THUE ACCUMATE A SOMECANT REMAILT THE MOSSIBILITY OF THE MOSSIBILITY OF	THOSE NOVOLALS WHATRON I BLIEVE AND COMMITTE I ES FOR SLEMITHIC FINE AND MARSON THERES URBER (PRIC	SUBMITTED MERRY AND BASED THE SUBMITTED AND MATCH IS AND AWARE PROPOSALE FOR THE SUBMITTED AND MATCH IS AND AWARE PROPOSALE AND TALLES AND MATCH IS AND THE SET IS USED I 1001 AND SHOMATURE OF PRINCIPAL EXECUTIVE BYTHER THE SHOWLE (THES USE IN THE SHOWLE) SHOWLE THE SHOWLE (THES USE IN THE SHOWLE) THE STATE OF THE SHOWLE (THES USE IN THE SHOWLE) SHOWLE THE SHOWLE (THE SHOWLE THE SHOWLE TH	09 09 04
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MONITORING PERIOD: SEPT 1 2004

MONTH YEAR

NO CSO DISCHARGES OCCURRED:

PAGE

ME:	City of Wood	River Regiona	el W.W.T.F.	PERMIT NUMBER: IL 003185	2
' 1	S: 559 State	Aid Road			-
CITY:	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618	-254-4074
RAIN	ESTIMATED	ESTIMATED AMOUNT OF	1 .	FALLS THAT DISCHARGED:	ESTIMATED DURATION
START DATE:	OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
9.15.04	4	<i>Ø</i> .7	A01	Mississippi River	2.5
			A01	Mississippi River	
			A01	Mississippi River	
			A01	Mississippi River *	
<u> </u>		<u> </u>	A01	Mississippi River	
			A01	Mississippi River	
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			A01	Mississippi River	
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			A01	Mississippi River	
Bruce Mur Project M		AND AM FAMILIAR WE ON AY HOUSE OF OSTANDOG THE MED TRUE ACCUPANT A SCHETCHAY SEMALTH THE POSSIBLETY OF HE POSSIBLETY OF	THE INFORMATION THOSE MOVIDUALS MATCH, I BELIEVE IND COMPLETE I IS FOR SUBMITTING THE AND IMPRISONA Fine AND	I TAVE PERSONALLY EXAMPLED SLAWITTED WEREN AND BASED AMEDIATED WEREN AND BASED AMEDIATED WEREN AND BASED AMEDIATED WERENAME OF THE SLAWITTED WERENAME OF THE SLAWITTED WERENAME AND AMEDIAN OF THE AME AND AMEDIAN OF THE AME AND AMEDIAN OF THE	10 11 04 10 00 000 TEAM

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 ½, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

L 532 2471 PC 559 Jan-96

MONITORING PE	RIOD:_/O_	12004
	MONTH	YEAR

NO CSO DISCHARGES OCCURRED:

ME:	City of Wood	River Regiona	al W.W.T.F	. PERMIT NUMBER: IL 0031852	
ADDRESS	: 559 State	Aid Road			
CITY:	Wood River	S	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-	254-4074
RAIN EVENT START DATE:	ESTIMATED DURATION OF EVENT (IN HOURS):	ESTIMATED AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	ESTIMATED DURATION OF CSO DISCHARGE (IN HOURS)
10-12-04	3,5	.0.4	A01	Mississippi River	1.75
10-14-04	16	Ø.65	A01	Mississippi River	6
10-18-04	16	1,25	A01	Mississippi River	7.5
10-26-04	3.2.5	Ø.6	A01	Mississippi River	2
			A01	Mississippi River	
			A01	Mississippi River	
			A01	Mississippi River	
			A01	Mississippi River	
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532 2471 559 Jan-96

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CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD: DEC 12004

MONTH YEAR NO CSO DISCHARGES OCCURRED:

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	City of Wood		el W.W.T.F	PERMIT NUMBER: IL 0031852	, , , , , , , , , , , , , , , , , , , ,
RES	S: 559 State	Aid Road			
1	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-	254-4074
RAIN EVENT	ESTIMATED DURATION	ESTIMATED AMOUNT OF	Į.	FALLS THAT DISCHARGED:	ESTIMATED DURATION
START DATE:	OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL NUMBER:		OF CSO DISCHARGE (IN HOURS):
12.6.04	12	1.75	A01	Mississippi River	5
			À01	 Mississippi River	
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			A 01	Mississippi River	
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			A01	Mississippi River	
			A01	Mississippi River	:
			A01	Mississippi River	
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<u>- </u>		<u> </u>	A01 [Mississippi River	<u> </u>
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532 247 <u>:</u> 533 <i>3a</i>				CODV PAGE	OF 1

559 Jan-96



PAGE 1 OF

MONITORING PERIOD: JAN 12005

MONTH YEAR

NO CSO DISCHARGES OCCURRED:

ME:	City of Wood	River Regiona	al W.W.T.F.	PERMIT NUMBER: IL 0031852	·
ADDRES:					
	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-2	54-4074
RAIN	ESTIMATED	ESTIMATED		FALLS THAT DISCHARGED:	ESTIMATED DURATION
START DATE:	OURATION OF EVENT (IN HOURS):	AMOUNT OF RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
1-2-05	13	2.0	A01	Mississippi River	6.5
1-4-05	24	2.45	A01	Mississippi River	16
			· · · · · · · · · · · · · · · · · · ·		
1-5-05	2.5	1.0	A01	Mississippi River	2.5
1-12-05	13.5	2.85	A01	Mississippi River	8
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**			A 01	Mississippi River	
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			A 01	Mississippi River	
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	Ì		A01	Mississippi River	
			}		,
		.	A01	Mississippi River	-
			1		<u>.</u>
		<u> </u>	A01	Mississippi River	
			A01	Mississippi River	
- Andrew Communication			A01	Mississippi River	
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Bruce Mur Project M		OF WY MOURY OF DETARMS THE RED THUS ACCURATE A SCHECANT PENALTH	THOSE POYOUALS PLATION I BELLEVE AC COMPLETE : A ES FOR SLAWTONG	THE SUBMITTED AND HAVE ON THE BOARD ON THE STATE OF THE SUBMITTED AND THE SUBMITTED	02 08 05
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MONITORING PERIOD: FEB 1 2005 NO CSO DISCHARGES OCCURRED:

MONTH YEAR

ME: City of Wood River Regional W.W.T.F. PERMIT NUMBER: IL 0031852

DRESS: 559 State Aid Road

STATE: -- ZIP CODE: 62095 TELEPHONE: 618-254-4074

ADDRESS	S: 559 State				
CITY:	Wood River	S	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-	
RAIN EVENT START	ESTIMATED DURATION OF EVENT	ESTIMATED AMOUNT OF RAINFALL	1	FALLS THAT DISCHARGED:	ESTIMATED DURATION OF CSO
DATE:	(IN HOURS):	(IN INCHES):	1	OUTFALL DESCRIPTION:	DISCHARGE (IN HOURS)
2-7-05	3	Ø.35	A01	Mississippi River	-2
2-13-05	8.5	ø.7	A01	Mississippi River	4
<u> </u>		<u> </u>	A01	Mississippi River	
			A01	Mississippi River	
			A01	Mississippi River	
	<u> </u>		A01 (Mississippi River	
			A01	Mississippi River	
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1			A01	Mississippi River	
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This Agency is authorized to require this information under Illinois Revised Statutes, 1991. Chapter 111 ¼, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

, 532-247<u>1</u> PC - 659 | Jan-96



PAGE 1 OF 1

MONITORING PERIOD: 03 / 2005 MONTH YEAR

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589 Jan-95

NO CSO DISCHARGES OCCURRED:

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ME:	City of Wood	River Regiona	al W.W.T.F	. PERMIT NUMBER: IL 0031852	
ADDRESS	: 559 State	Aid Road			
	Wood River		TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-	254-4074
RAIN	ESTIMATED DURATION	ESTIMATED AMOUNT OF	CSO OUT	FALLS THAT DISCHARGED:	ESTIMATED DURATION
EVENT START DATE:	OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
3.22.05	8.25	1.5	A01	Mississippi River	7.75
			A01	Mississippi River	
			A01	Mississippi River	
<u> </u>			A01	Mississippi River	
		· .	A01	Mississippi River	
	ar and		A01	Mississippi River	
			•	·	
			A01	Mississippi River	•
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			A01 1	Mississippi River	
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MONITORING PERIOD: 04 12005 MONTH YEAR

NO CSO DISCHARGES OCCURRED:

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ME:	City of Wood	River Regiona	al W.W.T.F	PERMIT NUMBER: IL 0031852	
ADDRES	S: 559 State	Aid Road			
CITY:	Wood River	S	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-2	54-4074
RAIN	ESTIMATED DURATION	ESTIMATED AMOUNT OF	1	FALLS THAT DISCHARGED:	ESTIMATED DURATION
START DATE:	OF EVENT (IN HOURS):	RAINFALL (IN INCHES):	OUTFALL	OUTFALL DESCRIPTION:	OF CSO DISCHARGE (IN HOURS):
			A01	Mississippi River	
			A01	Mississippi River	
			A01	Mississippi River	
			A01	Mississippi River *	
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· · ·			A07	Mississippi River	
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532 2471 553 Jan-98

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CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD: 05/200

NO CSO DISCHARGES OCCURRED:

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ME:	City of Wood	River Regiona	al W.W.T.F	PERMIT NUMBER: IL 0031852	
ADDRES	S: 559 State	Aid Road			· · · · · · · · · · · · · · · · · · ·
CITY:	Wood River	s	TATE: IL	ZIP CODE: 62095 TELEPHONE: 618-2	54-4074
RAIN EVENT	ESTIMATED DURATION	ESTIMATED AMOUNT OF	!	FALLS THAT DISCHARGED:	ESTIMATED DURATION
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CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

ITEM NO. 8.B)

Document(s) Submitted:

Current Plan For Preparation Of Long Term CSO Control

Strategies (Preparation of Long Term Control Plan)

Date Document Submitted:

February 2, 2006

Document Certification:

On behalf of the City of Wood River, Illinois, I hereby certify that all written statements contained in this document, which is submitted to USEPA pursuant to the above-referenced Administrative Order, are true and accurate to the best of my knowledge and belief. I also hereby stipulate that should I find, at any time subsequent to the submittal of this document to USEPA, that any of the written statements contained in this document are false or incorrect, I shall so notify USEPA – Region V.

Certification By: Stephen J. Palen, P.E.

Signature:

Title:

Director of Public Services

City of Wood River, Illinois

Date:

CITY OF WOOD RIVER, ILLINOIS RESPONSE TO U.S.E.P.A. ADMINISTRATIVE ORDER [Docket No.: V-W-05-AO-16]

CURRENT PLAN FOR PREPARATION OF LONG TERM CSO CONTROL STRATEGIES (PREPARATION OF CSO LONG TERM CONTROL PLAN)

Prepared By
HORNER & SHIFRIN, INC.

JANUARY 2006

AMENDED: MARCH 2006

RE-AMENDED: JUNE 2006

SUBMITTAL OF PLAN FOR PREPARATION OF LONG TERM CONTROL STRATEGIES (PREPARATION OF LONG TERM CONTROL PLAN)

PURPOSE AND SCOPE

A. Purpose

The primary purpose of this submittal of the current plan for preparation of long term CSO control strategies for the City of Wood River, Illinois is to fulfill a requirement stated under Item 8.B) of an Administrative Order issued by USEPA Region V pursuant to Sections 308 and 309(a) of the Clean Water Act (Docket No. V-W-05-AO-16) and received by the City of Wood River on October 6, 2005.

Specifically, Item 8.B) of the above-referenced Administrative Order requires that the City shall submit to USEPA any current plans and documented implementation of plans the City has initiated in preparation of long term CSO control strategies as required by the City's modified NPDES Permit.

B. Scope

The above-described specific requirement essentially defines the scope of the necessary submittal in response to Item 8.B) of the Administrative Order, in that the City of Wood River does not have a CSO Long Term Control Plan in place, nor were any efforts to develop CSO long term control strategies underway, at the time of the City's receipt of the Administrative Order.

The reason for this situation was that IEPA's review of Wood River's combined sewer system in 2002 (conducted during IEPA's process for renewing the NPDES Discharge Permit for Wood River's wastewater treatment plant) found that "Based on available information, it appears that..." the City's lone CSO outfall did "... not have a high reasonable potential to cause or contribute to violations of applicable water quality standards or use impairment". IEPA further concluded that unless "... information causing the IEPA to reverse this conclusion became available, the Permittee..." need not "... develop a plan for abating such use impairment and bringing the flows from its CSO into compliance with Water Quality Standards".

The City of Wood River is not aware of any information that has become available during the period from July 2002 to the present time that might cause IEPA to reverse the above conclusion. However, given that Item 9. of the Administrative Order specifically requires that the City prepare and submit to USEPA a CSO Long Term Control Plan (LTCP), it is now incumbent on the City of Wood River to initiate preparation of a LTCP.

II. CURRENT CONTROL STRATEGIES

As previously indicated, Item 8.B) of the Administrative Order requires the City of Wood River to submit "Any current plans and documented implementation of plans the City has initiated in preparation of long term CSO control strategies (e.g., a Long Term Control Plan, other similar plans)".

II. CURRENT CONTROL STRATEGIES (continued)

In response to this Item 8.B) of the Administrative Order, the City hereby acknowledges that no plans concerning development of a formal Long Term Control Plan have been developed by the City of Wood River. This situation results, as previously stated, from IEPA's previous determination (as stated in Paragraph 10 under Special Condition 13 of the City's modified NPDES Permit) that IEPA review of Wood River's combined sewer system in 2002 found that the City's outfall did not have a high reasonable potential to cause or contribute to violations of applicable water quality standards or use impairment. Thus, IEPA did not require the City of Wood River to develop a Long Term Control Plan, unless information causing the IEPA to reverse this conclusion became available, which it has not.

The City's current long-term CSO control strategy is summarized by the Nine Minimum Controls, which the City is required to implement by the City's NPDES Permit and by National CSO Control Policy. Consequently, these Nine Minimum Controls (along with the City's IEPA-approved revised Combined Sewer Operational Plan) have served as an interim plan for the City of Wood River, until a Long Term Control Plan was required to be developed and implemented. Review of available documents furnished by City staff discloses that many improvements to minimize the impact of the CSO's have already been made by the City of Wood River.

III. LONG TERM CONTROL PLAN CONSIDERATIONS

In order to properly promote compliance with the requirements of Item 8.B) and Item 9. of the Administrative Order, the City of Wood River must develop and submit a CSO Long Term Control Plan. Specifically, as detailed in a guidance document used by USEPA-Region V to ensure conformity of CSO Long Term Control Plans with EPA's 1994 CSO Control Policy, that Long Term Control Plan must incorporate the following minimum elements, modified to account for the specific circumstances of the City of Wood River:

- Characterization, Monitoring, and Modeling of the Combined Sewer System, which should include a data management plan
- Public Participation Process
- Consideration of Sensitive Areas
- Evaluation of Alternatives
- Cost / Performance Considerations
- Revisions of the CSO Operational Plan
- Maximizing Treatment at the STP
- Development of an Implementation Schedule
- Development of a Post-Construction Compliance Monitoring Program

In determining the approach to developing, and logical elements of, a Long Term Control Plan for the City of Wood River, the extensive work already accomplished by the City to control the water quality impacts of its CSO, the City's classification as a small system (given the City's current population of approximately 11,300), the presence of only one CSO outfall, and the question as to whether the receiving water (Mississippi River) for CSO discharges is impaired were all taken into consideration.

III. LONG TERM CONTROL PLAN CONSIDERATIONS (continued)

Most importantly, USEPA CSO control guidance documents state that small municipalities with populations under 75,000 may <u>not</u> need to complete <u>each</u> of the formal steps outlined in Section II. C. of the National CSO Control Policy.

However, at a minimum, such cities are still required to develop a Long Term Control Plan that will provide for the attainment of Water Quality Standards, and that does include at least the following major elements:

- Implementation of the Nine Minimum Controls
- Public Participation
- Consideration of Sensitive Areas
- Post-Construction Compliance Monitoring Program

Since IEPA determined in 2002 (during IEPA's process for renewing the NPDES Discharge Permit for Wood River's wastewater treatment plant) that the City of Wood River's outfall did not discharge to a sensitive area, the City of Wood River believed that consideration of sensitive areas need not be addressed in the City's Long Term Control Plan. However, subsequent indications from USEPA have been that USEPA still believes that the City's Long Term Control Plan development process should re-examine the consideration of sensitive areas.

Also, if the outfall which is regulated under the City's NPDES Permit discharges is determined to be a water body that is impaired due to other uncontrolled sources of pollution or other factors that preclude attainment of higher order uses, the "demonstration approach" may be used as the measure of the City's Long Term Control Plan effectiveness.

In fact, it is the intent of the City of Wood River and the City's engineering consultant to establish that just such a situation exists, with respect to the City's CSO outfall; and that the "demonstration approach" is appropriate for Wood River's CSO Long Term Control Plan.

IV. OUTLINE OF PROPOSED LONG TERM CONTROL PLAN

The initial detailed outline of the proposed CSO Long Term Control Plan developed for the City of Wood River, IL is presented on the following page. It is proposed that public participation in the Long Term Control Plan's development would be achieved though one public meeting on the topic of system characterization, and a series of public meetings on the topics listed under Heading 3. Long Term CSO Control Plan.

The detailed outline, first submitted in January 2006, has now undergone two revisions – one in March 2006 and the second in June 2006 – to reflect review comments received by USEPA staff, and additional information obtained by Horner & Shifrin.

INITIAL OUTLINE OF PROPOSED LONG TERM CSO CONTROL PLAN

- 1. Introduction
 - a. Purpose and goals of the Long Term Control Plan
 - b. City of Wood River's special conditions and considerations
- 2. Limited Characterization of System
 - a. Analysis of Existing Data
 - i. Frequency and duration of each discharge
 - ii. CSO event BOD levels
 - iii. CSO event suspended solids levels
 - iv. CSO event fecal coliform levels
 - b. Watershed Characterization
 - i. Define watershed area
 - ii. Identify geographic and environmental features
 - iii. Identify infrastructure features
 - iv. Compilation of municipal data
 - v. Identification of any other point or non-point pollution sources within the defined watershed area
 - c. Receiving Waterbody Characterization
 - i. Current Water Quality
 - ii. Water Quality Standards
- 3. Long Term Control Plan (Based on current implementation of the Nine Minimum Controls and the CSO Operational Plan)
 - a. CSO Operational Plan (as currently approved)
 - b. Flow Capture for Treatment Maximization Plan
 - c. Review of Pretreatment Requirements
 - d. Maximization of Flow to the POTW Plan
 - e. Control of Solid and Floatable Materials in CSOs
 - f. Pollution Prevention Plan
 - g. Public Notification Plan
 - h. Monitoring Program
 - i. Sewer System Optimization Plan
 - i. Sewer Use Ordinances
- 4. Evaluation of City's Financial Capabilities

By: Horner & Shifrin, Inc. January 25, 2006

V. MARCH 2006 MODIFICATIONS TO CSO CONTROL STRATEGIES

Subsequent to the initial submittal of this documentation of the City of Wood River's initiation of preparation of long-term CSO Control Strategies by the City to USEPA on February 2, 2006 – in response to Item 8.B.) of the Administrative Order, USEPA requested that a meeting be conducted to "game plan" the City's preparation of their Long Term CSO Control Plan. That meeting – involving representatives of the City of Wood River, USEPA staff, and representative of the City engineering consultant (Horner & Shifrin, Inc.) – was held on March 6, 2006.

As a result of the discussions conducted during that meeting, USEPA requested and the representatives of the City of Wood River and Horner & Shifrin agreed, that certain modifications be made to this response to Item 8.B) of the Administrative Order and that this Amended version of that response be prepared and submitted by the City of Wood River to USEPA.

Essentially, the modifications / additions to the previously-submitted response to Item 8.B) of the Administrative Order consisted of providing information to address the following:

- Identification of the anticipated activities that the City and its consultant will complete (and the schedule for completion of those activities) as part of the actual development of the City's CSO Long Term Control Plan.
- Identification of the alternative approaches that will be evaluated by the City and its consultant for implementing the specific elements (Items 3.a. through j.) of the CSO Long Term Control Plan represented by the submitted Plan Outline.
- Evaluation of Sensitive Area Considerations.

A second version of the detailed outline of the proposed CSO Long Term Control Plan we subsequently developed for the City of Wood River, which addressed the USEPA-requested modifications / additions from March 2006 and is presented on the following pages.

A copy of an 11" x 17" Gannt chart, critical-path-method schedule which identified the anticipated activities that the City and Horner & Shifrin, Inc. would complete (and the estimated times for completion of those activities) as part of the actual development of the City's CSO Long Term Control Plan we also developed based on the March 2006 LTCP outline revisions and is presented following the revised CSO Long Term Control Plan outline.

REVISED OUTLINE OF PROPOSED CSO LTCP - MARCH 2006

- 1. Introduction
 - a. Purpose and goals of this Long Term CSO Control Plan
 - b. Wood River's special conditions and considerations
- 2. Limited Characterization of Combined Sewer System
 - a. Analysis of Available Historic CSO Discharge Data
 - i. Frequency and duration of each CSO discharge
 - ii. CSO event BOD discharge levels
 - iii. CSO event Total Suspended Solids discharge levels
 - iv. CSO event Fecal Coliform discharge levels
 - b. Sewer System Tributary Watershed Characterization
 - i. Define watershed area
 - ii. Identify geographic and environmental features
 - iii. Identify infrastructure features
 - iv. Compilation of municipal data
 - v. Identification of any other significant point or non-point pollution Sources within the defined watershed area
 - c. Receiving Waterbody Characterization
 - i. Define Current Water Quality
 - ii. Determine Applicable Water Quality Standards
 - iii. Establish Receiving Waterbody WQ Protection Goals
- 3. Limited Monitoring of Combined Sewer System *
 - a. Gathering of CSO Discharge Data
 - i. Frequency and duration of each CSO discharge
 - ii. CSO event BOD discharge levels
 - iii. CSO event Total Suspended Solids discharge levels
 - iv. CSO event Fecal Coliform discharge levels
 - b. Gathering of Receiving Stream Data
 - i. Stream Flow at time of each CSO discharge
 - ii. CSO event Stream BOD levels
 - iii. CSO event Stream Total Suspended Solids levels
 - iv. CSO event Stream Fecal Coliform levels
 - c. Data Management Plan Developed
- 4. Consideration of Sensitive Areas in Immediate Area of CSO Discharge Point
 - a. Designated Outstanding National Resource Waters
 - b. Waters Containing Threatened or Endangered Species or Habitat
 - c. Water Used for Primary Contact Recreation
 - d. Within Protection Area for Drinking Water Intake

REVISED OUTLINE OF PROPOSED CSO LTCP - MARCH 2006

(continued)

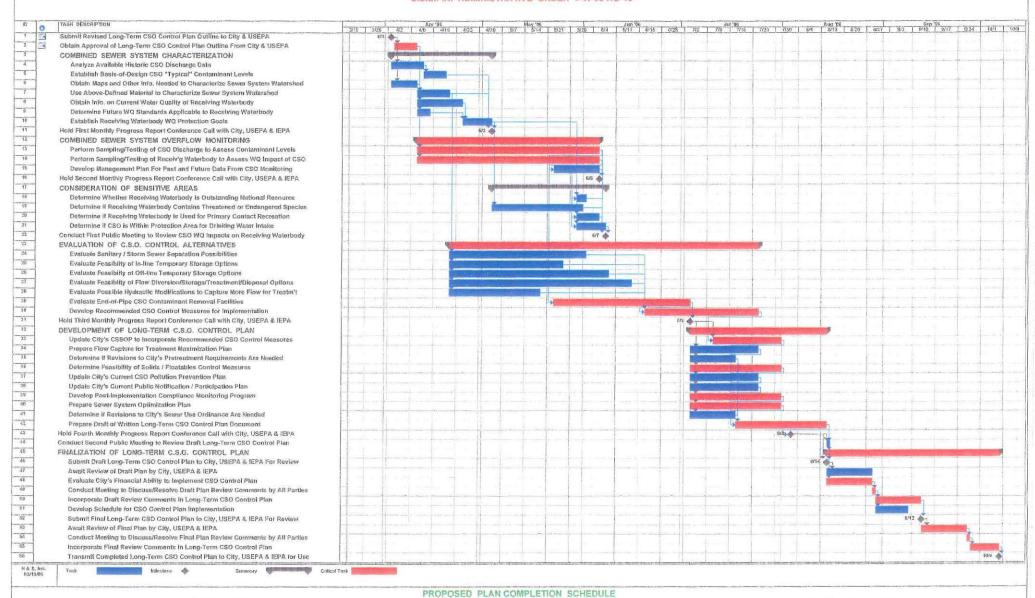
- 5. Evaluation (Performance / Cost) of CSO Control Options (Alternatives)
 - a. Sanitary / Storm Sewer Separation
 - b. Peak Flow Attenuation by Temporary In-line Storage
 - c. Peak Flow Attenuation by Temporary Off-line Storage
 - d. Peak Flow Diversion to New Store / Treat / Dispose Facilities
 - e. Sewer System Hydraulic Modifications to Capture More Flow for Treatment
 - f. CSO Contaminant Removal Facilities
- 6. Resulting Long Term Control Plan **
 - a. Approved, Updated Combined Sewer System Operational Plan (CSSOP)
 - b. Flow Capture for Treatment Maximization Plan
 - c. Pretreatment Requirement Revisions (if any)
 - d. Control of Solid and Floatable Materials in CSOs
 - e. Pollution Prevention Plan
 - f. Public Notification / Participation Plan
 - g. Post-Implementation Compliance Monitoring Program
 - h. Sewer System Optimization Plan
 - i. Sewer Use Ordinance Modifications (if any)
- 7. Evaluation of City's Financial Capabilities to Implement CSO Controls
- 8. Proposed Schedule for Implementing Long Term CSO Control Plan

Notes: * Based on small size of sewer system and considering that the City has only one CSO outfall, modeling of the system is not warranted.

** Based on current implementation of the Nine Minimum Controls, and the City's current Combined Sewer Operational Plan.

By: Horner & Shifrin, Inc. March 20, 2006

CITY OF WOOD RIVER, ILLINOIS DEVELOPMENT OF LONG-TERM C.S.O. CONTROL PLAN U.S.E.P.A. ADMINISTRATIVE ORDER V-W-05-AO-16



VI. JUNE 2006 MODIFICATIONS TO CSO CONTROL STRATEGIES

Subsequent to the March 2006 submittal of this documentation of the City of Wood River's revised methodology for preparation of long-term CSO Control Strategies by the City to USEPA, USEPA requested that several items of the March 2006 CSO LTCP outline be modified again for clarity as well as to add several items. These changes were discussed during a conference call between the City of Wood River, USEPA staff, and a representative of Horner & Shifrin on June 2, 2006.

Essentially, the modifications / additions to the previously re-submitted response to Item 8.B) of the Administrative Order consisted of including elements in the LTCP outline to address the following:

- Clarification of data analysis to be completed as part of LTCP development
- Identification of historical hydraulic problems within the sewer system
- Evaluation of sewer/manhole rehabilitation for infiltration & inflow reduction as an alternative to be considered
- Evaluation of possibly increasing the capacity of the City's existing wastewater treatment facility as an alternative to be considered
- Evaluation of possibly decreasing wet weather flows from the Villages of Hartford and Roxana as an alternative to be considered

A re-revised detailed outline of the proposed CSO Long Term Control Plan to be developed for the City of Wood River, which addresses the above-described USEPA-requested modifications / additions from June 2006 was prepared and is presented on the following pages.

A copy of the revised 11" x 17" Gannt chart, critical-path-method schedule which identifies the anticipated activities that the City and Horner & Shifrin, Inc. will complete (and the estimated time for completion of those activities) as part of the actual development of the City's CSO Long Term Control Plan that reflects the June 2006 LTCP outline revisions is also attached following the re-revised CSO Long-Term Control Plan outline.

RE-REVISED OUTLINE OF PROPOSED CSO LTCP - JUNE 2006

- 1. Introduction
 - a. Purpose of This CSO Long Term Control Plan (LTCP)
 - b. Wood River's Special Conditions and Considerations
 - c. Scope of This LTCP
- 2. Characterization Activities
 - a. Characterization of the Sewer System
 - i. Description of sewer system and operational features
 - ii. Sewer system maps
 - iii. Past history of hydraulic problems
 - b. Characterization of Tributary Watershed
 - i. Define sewer system watershed area
 - ii. Identify sewers which most contribute to CSOs
 - iii. Identify infrastructure features and land uses
 - c. Characterization of CSO Discharges (using historical NPDES monitoring data)
 - i. Frequency and duration of each CSO discharge
 - ii. CSO event flow levels
 - ii. CSO event BOD discharge levels
 - iii. CSO event Total Suspended Solids discharge levels
 - iv. CSO event Fecal Coliform discharge levels
 - d. Characterization of Receiving Waterbody
 - i. Identification of other significant pollution sources
 - ii. Define Current Water Quality (using available historical sampling data)
 - iii. Determine Average Flow Statistics for Receiving Water Body
 - iv. Determine Applicable Water Quality Standards
- 3. Monitoring/Modeling Activities*
 - a. Gathering of CSO Discharge Data
 - i. Frequency and duration of each CSO discharge
 - ii. CSO event BOD discharge levels
 - iii. CSO event Total Suspended Solids discharge levels
 - iv. CSO event Fecal Coliform discharge levels
 - b. Gathering of Receiving Stream Data
 - i. Stream Flow at time of each CSO discharge
 - ii. CSO event Stream BOD levels
 - iii. CSO event Stream Total Suspended Solids levels
 - iv. CSO event Stream Fecal Coliform levels
 - c. Data Management Plan

RE-REVISED OUTLINE OF PROPOSED CSO LTCP – JUNE 2006 (continued)

- 4. Public Participation Process
 - a. Information Dissemination
 - b. Involvement Encouragement
 - c. Public hearing (forum)
- 5. Consideration of Sensitive Areas
 - a. Designated Outstanding National Resource Waters
 - b. Waters Containing Threatened or Endangered Species or Habitat
 - c. Water Used for Primary Contact Recreation
 - d. Within Protection Area for Drinking Water Intake
- 6. Nine Minimum Controls Implementation Status**
 - a. Approved, Updated Combined Sewer System Operational Plan (CSSOP)
 - b. Use of Collection System for Storage
 - c. Flow Capture for Treatment Maximization Plan
 - d. Pretreatment Requirement Revisions (if any)
 - e. Control of Solid and Floatable Materials in CSOs
 - f. Pollution Prevention Plan
 - g. Public Notification / Participation Plan
 - h. Sewer System Optimization Plan
 - i. Sewer Use Ordinance Modifications (if any)
- 7. Evaluation (Cost vs. Performance) of CSO Control Options (Alternatives)
 - a. Sanitary / Storm Sewer Separation
 - b. Sewer / Manhole Rehabilitation for Infiltration & Inflow Reduction
 - c. Peak Flow Attenuation by Temporary In-line Storage
 - d. Peak Flow Attenuation by Temporary Off-line Storage
 - e. Peak Flow Diversion to New Store / Treat / Dispose Facilities
 - f. Sewer System Hydraulic Modifications to Capture More Flow for Treatment
 - g. CSO Contaminant Removal Facilities
 - h. Increase Capacity at Wastewater Treatment Facility
 - Decrease Flows from the Villages of Hartford and Roxana
- 8. Evaluation of City's Financial Capabilities to Implement CSO Controls
 - a. Municipal Affordability Screener Index
 - b. Secondary Financial Capability Index
 - Other Socioeconomic Indicators

RE-REVISED OUTLINE OF PROPOSED CSO LTCP – JUNE 2006 (continued)

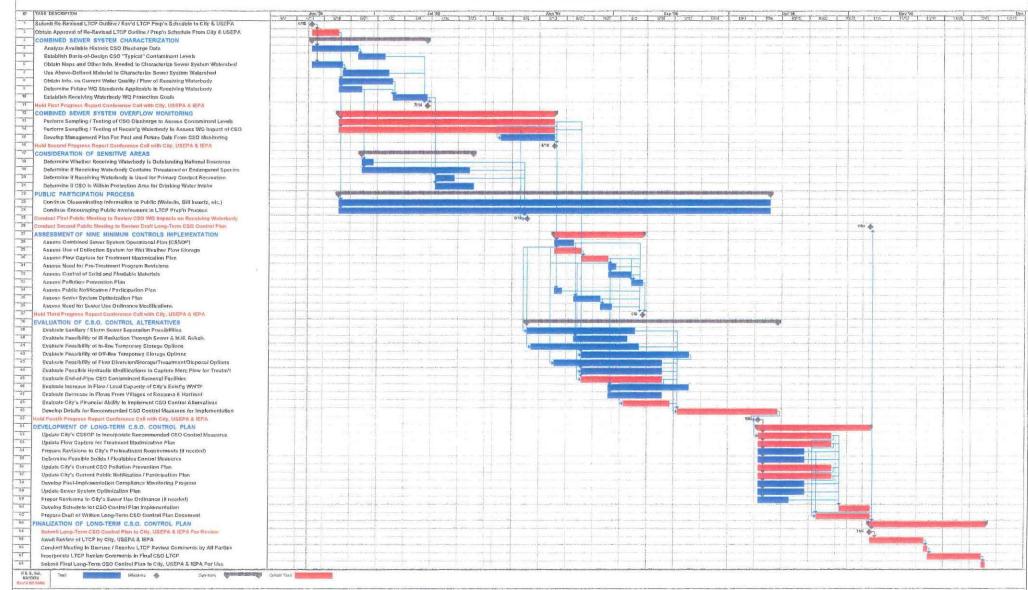
- 9. Details of Alternative(s) Chosen for Implementation in Recommended LTCP
 - a. Improvements to be constructed
 - b. Necessary operational changes
 - c. Capital costs involved
 - d. Increased O&M costs involved
- 10. Post-Implementation Compliance Monitoring Program
- 11. Schedule for Implementing CSO Long Term Control Plan

Notes: * Based on small size of sewer system and considering that the City has only one CSO outfall, modeling of the system is not warranted.

** Based on current implementation of the Nine Minimum Controls, and the City's current Combined Sewer Operational Plan.

By: Horner & Shifrin, Inc. June 15, 2006

CITY OF WOOD RIVER, ILLINOIS DEVELOPMENT OF LONG-TERM C.S.O. CONTROL PLAN U.S.E.P.A. ADMINISTRATIVE ORDER V-W-05-AO-16



APPENDIX FF

Post-Compliance Monitoring
Nine Minimum Controls Evaluation Checklist

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Suggested Nine Minimum Controls Evaluation Checklist								
Evaluation Criteria	Yes	No	N/A		Remarks			
Proper Operation and Regular Maintenance Programs for the CSS and CSO Outfalls								
Does the O&M program describe the system, including an inventory of all CSO structures, equipment, and treatment facilities?								
Does the O&M program provide procedures for keeping this inventory current?								
Will the O&M program be effective in reducing the number, frequency, and pollutant loadings of CSOs?								
Does the O&M program:			·					
Include routine inspection, cleaning and maintenance, and repair schedules for all inventoried CSO outfalls, interceptors, regulators, pumping stations, and equipment including schedules and inspection frequencies that are appropriate for the system?						·		
Include inspections for dry weather overflows and illicit connections?								
Provide operating procedures and specifications for all equipment, structures, facilities, CSO outfalls, and off-line storage structures, including the hydraulic capacities of the collection and treatment systems, the storage capacities of the collection and treatment systems, and off-line storage capacity?								
Have in place operating procedures that reflect the best use of the system's flow and routing controls to minimize CSOs, including procedures to identify and correct CSS and CSO problems?								
Require logs or other documentation of completed activities and documentation of sewage blockages?								
Address the location of overflows where O&M is hindered (e.g., structures are under major thoroughfares, railroad yards, or other difficult-to-reach or safety hazard areas)?		}						

Appendix

Suggested Nine Minimum Controls Evaluation Checklist

buggested Time Will	IIIII	ILL CAU ILL	aution O	
Evaluation Criteria	Yes	No	N/A	Remarks
Allocate resources for O&M program implementation, including staffing level and funding, equipment, and training?				
Evaluation Result (circle one)	Adequate	Inadequate	Other	
Maximum Use of the Collection System for Storage				
Has the permittee:				
Identified portions of the CSS usable for storage and determined the CSS storage capacity, including configuration, size, and pump station capacity?				
Identified appropriate minor modifications to increase storage (e.g., raising existing weirs)?				
Identified potential off-line storage at existing facilities?				
Implemented procedures for maximizing CSS storage capacity?				
Evaluation Result (circle one)	Adequate	Inadequate	Other	

Appendix

Suggested Nine Minimum Controls Evaluation Checklist					
Evaluation Criteria	Yes	No	N/A	Remarks	
Review and Modification of Pretreatment Programs					
Has the permittee:					
Determined whether the CSS receives nondomestic wastewater discharges?			·		
Prepared an inventory of nondomestic users who discharge to the CSS and evaluated the discharge constituents and suspected impacts from such users?					
Evaluated the potential for regulating either the volume or pollutant loadings from nondomestic users to the CSS during wet weather flow conditions?				·	
Modified the pretreatment program as determined appropriate?					
Evaluation Result (circle one)	Adequate	Inadequate	Other	·	

Suggested Nine Minimum Controls Evaluation Checklist

Evaluation Criteria	Yes	No	N/A	Remarks
Maximization of Flow to POTW Treatment Plant				
Has the permittee:				
Compared existing flow conditions to the design capacity of the collection system?				
Identified actions that could be taken to increase flows to the POTW treatment plant during wet weather flow conditions without significantly affecting treatment performance?				
Conducted plant tests to determine the plant capability to treat higher flows during wet weather flow conditions or determined, using available historical data, the maximum flow that can be treated?				
Developed, implemented, and documented implementation of a flow maximization plan during wet weather flow conditions?				
Evaluation Result (circle one)	Adequate	Inadequate	Other	
	<u> </u>	<u> </u>		

Appendix

Suggested N	line Minimu	m Controls	Evaluation	Checklist
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Evaluation Criteria	Yes	No	N/A	Remarks
Prohibition of CSOs During Dry Weather Flow Conditions				
Has the permittee:				
Developed adequate procedures to document where and when dry weather overflows occur, including follow-up inspections after dry weather overflows occur?				
Developed and instituted procedures to prevent and eliminate dry weather overflows, including routine inspection of regulators and CSO outfalls as part of the O&M plan?				·
Evaluation Result (circle one)	Adequate	Inadequate	Other	

Suggested Nine Minimum Controls Evaluation Checklist				
Evaluation Criteria	Yes	No	N/A	Remarks
Control of Solid and Floatable Materials in CSOs				
Has the permittee:				
Evaluated the following technologies for the control of solid and floatable materials in CSOs:				
Screening materials using baffles, screens, and netting?				
Skimmer boats?				
Skimming from water body surface with booms at outfalls in confined areas?				
Source control, which may be addressed under the pollution prevention program for CSO outfalls?				
Identified and addressed problems that may be created by the installation of the control technology?				
Implemented the appropriate control technology, considered and provided justification that the technology is appropriate for the site conditions, and is conducting associated inspections and regular maintenance?				
Evaluation Result (circle one)	Adequate	Inadequate	Other	
		<u> </u>		

Evaluation Criteria	Yes	No	N/A	Remarks
Pollution Prevention Program				
Has the permittee:				,
Evaluated source control measures both at the government level (e.g., street cleaning; banning or substitution of products, such as plastic food containers; controlled use of pesticides, fertilizers, and other hazardous substances at public facilities) and among the public (e.g., used oil recycling, household hazardous waste collection)?				
Included a wide-reaching public education program?				
Evaluated mechanisms to encourage water conservation (e.g., public outreach, structuring of water/sewer service charges, local ordinance provisions)?				
Allocated adequate resources to conduct pollution prevention program activities?				
Implemented and maintained detailed records of pollution prevention activities?				
Promoted the use of industrial/construction BMPs for storm water?				
Evaluation Result (circle one)	Adequate	Inadequate	Other	

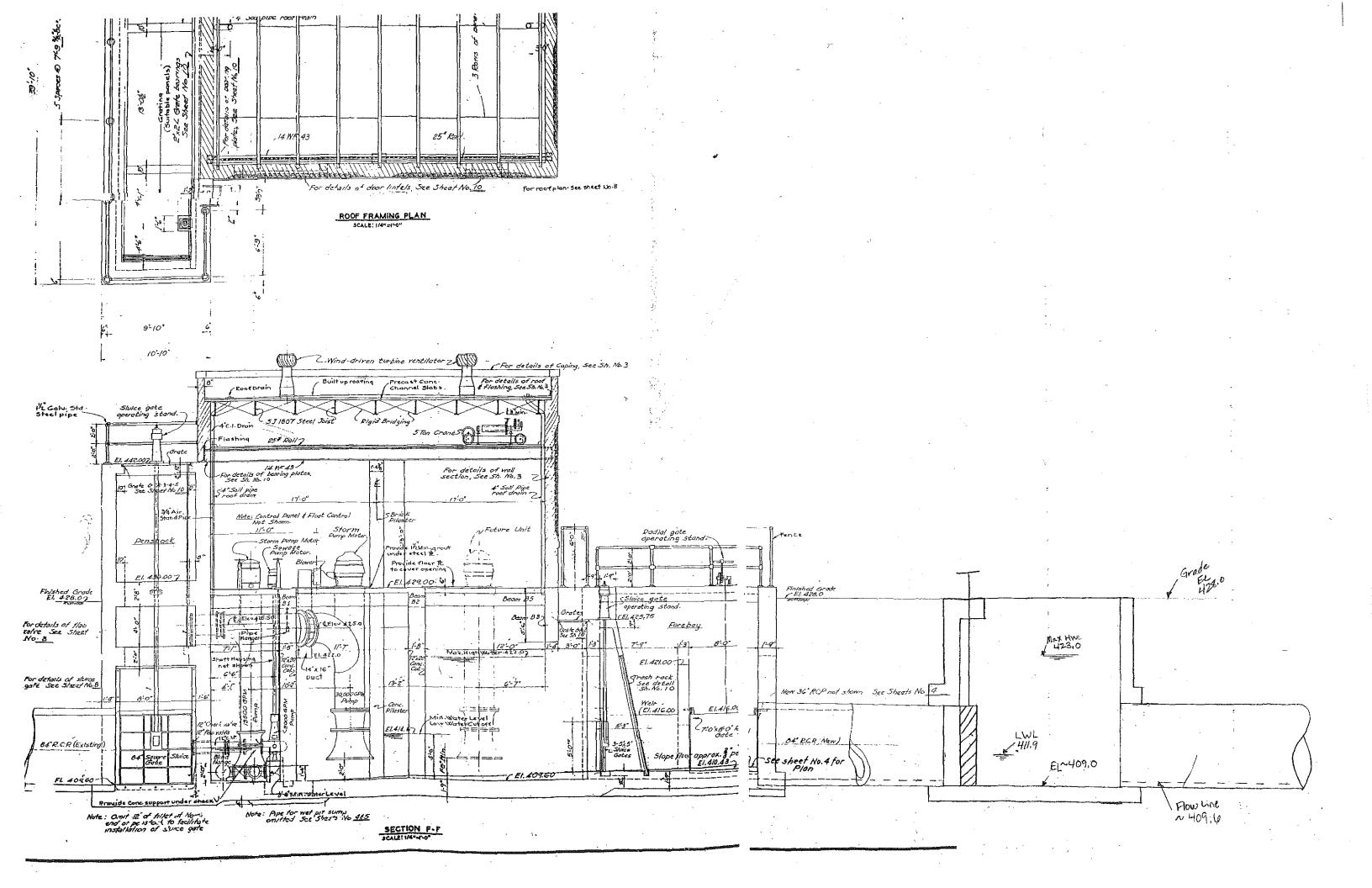
Suggested Nine Minimum Controls Evaluation Checklist						
Evaluation Criteria	Yes	No	N/A		Remarks	
Public Notification						
Has the permittee:						
Evaluated options for public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts?						
Implemented notification procedures regarding the presence of contaminants at critical levels in the receiving water bodies due to CSOs?						
Implemented procedures that notify persons reasonably expected to be affected by the CSO?						
Documented CSO occurrences and associated notifications?	7					
Installed identification signs at each CSO outfall?						
Evaluation Result (circle one)	Adequate	Inadequate	Other			
				w.e.	. *	1

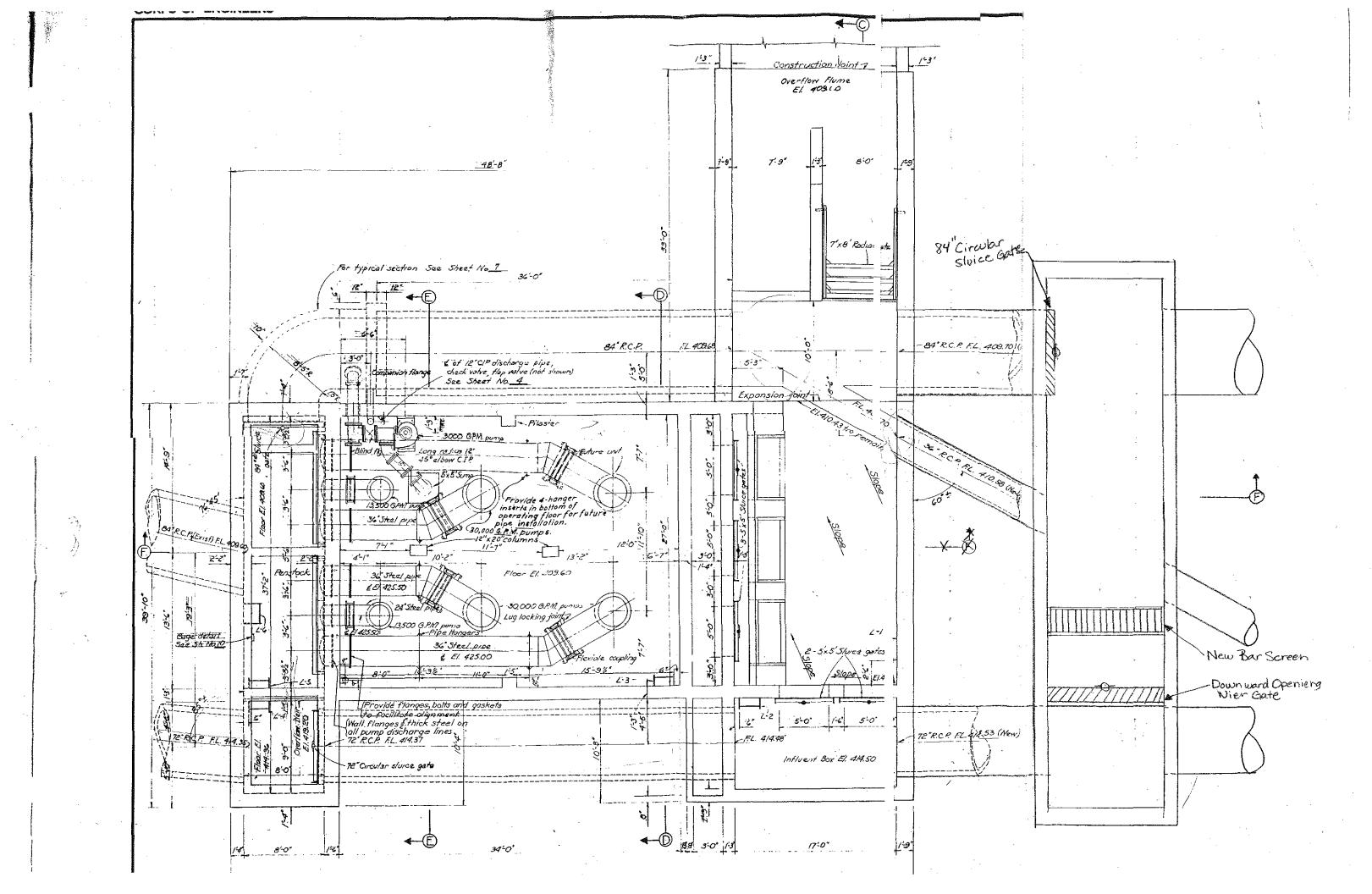
Evaluation Criteria	Yes	No	N/A	Remarks
Monitoring to Effectively Characterize CSO Impacts and Efficacy of CSO Controls				
Has the permittee:				
Characterized the CSS to identify all CSO locations and receiving water bodies?				
Collected data on the total number of overflow events and the frequency and duration of CSOs for a representative number of CSO events?				
Collected water quality data and information on chemical, physical, and biological impacts resulting from CSOs (e.g., beach closings, floatables, wash-up episodes, fish kills, impaired habitat for aquatic life)?				
Conducted monitoring to determine baseline conditions prior to implementation of the NMC?				
Conducted monitoring to determine baseline conditions subsequent to implementation of the NMC, which may be used in LTCP development?				
Evaluation Result (circle one)	Adequate	Inadequate	Other	
Comprehensive Evaluation Result (circle one)	Adequate	Inadequate	Other	

Suggested Nine Minimum Controls Evaluation Checklist

APPENDIX GG

Hydraulic Evaluation of the City's Use of BP Amoco's 72" Sewer





Wood River/BP Amoco Storage Basins

Peak BP Flow in 72" as	Flow Capacity of 72" with New CSO
Currently Operated	Structure
C Value: 100	C Value: 100
Pipe Diam. 72 inches Flow: 165000 gpm	Pipe Diam. 72 inches Flow: 20000 gpm
238 mgd	Flow: 20000 gpm 29 mgd
250 Mga	25 mgu
Lagoon Outfall to 90 Manhole	Lagoon Outfall to 90 Manhole
WL in Lagoon 421	WL in Lagoon 421
Pipe length 125 feet	Pipe length 125
Pipe Entry Loss (K) 0.5	Pipe Entry Loss (K) 0.5
Pipe Exit Loss (K) 1 Velocity Head 2.62	Pipe Exit Loss (K) 1 Velocity Head 0.04
velocity riead 2.02	velocity flead 0.04
Hf pipe 1.07	Hf pipe 0.02
Hf MH 1.84	Hf MH 0.03
Hentry 1.31	Hentry 0.02
Hexit 2.62	Hexit 0.04
H tot 6.85	H tot 0.11
WL in MH 427.85	WL in MH 421.11
421.33	421.11
90 Manhole to Isolation Gate	90 Manhole to Isolation Gate
WL in manhole 427.85	WL in manhole 421.11
Pipe length 125	Pipe length 125
Pipe Entry Loss (K) 0.5	Pipe Entry Loss (K) 0.5
Pipe Exit Loss (K) 1	Pipe Exit Loss (K) 1
Velocity Head 2.62	Velocity Head 0.04
Hf pipe 1.07	Hf pipe 0.02
Hentry 1.31	Hentry 0.02
Hexit 2.62	Hexit 0.04
H tot 5.01	H tot 0.08
WL in gate structure 432.86	WL in gate structure 421,19
Isolation Gate to Exit LDPS	Isolation Gate to Exit LDPS
WL in structure 432.86	WL in structure 421,19
Pipe length 350	Pipe length 350
Pipe Entry Loss (K) 0.5	Pipe Entry Loss (K) 0.5
Pipe Exit Loss (K)	Pipe Exit Loss (K) 1
Velocity Head 2.62	Velocity Head 0.04
Hf pipe 3.01	Hf pipe 0.06
Hentry 1.31	Hentry 0.02
Hexit 2.62 H tot 6.94	Hexit 0.04 H tot 0.12
D (b): 0.54	H tot 0.12
WL in Structure 439.80	WL in Structure 421.30
Exit LDPS to Forebay	Exit LDPS to Forebay
WL in structure 439.80	WL in structure 421.30
Pipe length 26 Pipe Entry Loss (K) 0.5	Pipe length 26 Pipe Entry Loss (K) 0.5
Pipe Entry Loss (K) 0.5 Pipe Exit Loss (K) 1	Pipe Entry Loss (K) 0.5 Pipe Exit Loss (K) 1
Velocity Head 2.62	Velocity Head 0.04
Hf pipe 0.22	Hf pipe 0,00
Hentry 1.31	Hentry 0.02
Hexit 2.62	Hexit 0.04
H tot 4.16	H tot 0.06
WL in Forebay 443.96	WL in Forebay 421.37
Forebay to J 100	Forebay to CSO Structure
WL in structure 443.96	WL in structure 421.37
Pipe length 200	Pipe length 20
Pipe Entry Loss (K) 0.5	Pipe Entry Loss (K) 0.5
Pipe Exit Loss (K) 1 Velocity Head 2.62	Pipe Exit Loss (K) 1
Velocity Head 2.62	Velocity Head 0.04
Hf pipe 1.72	Hf pipe 0.00
Hentry 1.31	Hentry 0.02
Hexit 2.62	Hexit 0.04
H tot 5.65	H tot 0.06
11/1 : 1100	
WL in J100 449.61	WL in CSO Structue 421.43
	CSO Structure to J100
	WL in structure 421.43
	Flow from BP 6667 gpm
	Pipe length 200
	Pipe Entry Loss (K) 0.5
	Pipe Exit Loss (K) 1
	Velocity Head 0,00
	Hf pípe 0.00
	Hentry 0.00
	Hexit 0.00
	H tol 0.01
	i ···

WL in CSO Structue

421.44

New CSO Structure and Sewer

C Value: 100
Pipe Diam, 72 inches
Flow: 33333 gpm
19 mgd

Losses from We WL in New Struct		421,43
Flow in cf/s Length of gate (ft) Head	29.70004	29.7 8 1.10 *
WL btwn Gate an	d screen	422.52
Losses through WL btwn Gate an		421.43
Say Max WL in CSO S	Structure	0.5 421.93

^{*}Goal seek function to be re-run after a change in anything highlighted

Flow Capacity of 72" with New CSO

Structure (Pumping)
C Value: 100
Pipe Diam. 72 inches
Flow: 117000 gpm
168 mgd

Lagoon Outfall to 90 Manhole

WL in Lagoon	421
Pipe length	125
Pipe Entry Loss (K)	0.5
Pipe Exit Loss (K)	1
Velocity Head	1.32

Hf pipe	0.57
Hf MH	0.92
Hentry	0.66
Hexit	1.32
H tot	3.47

WL in MH 424.47

90 Manhole to Isolation Gate

WL in manhole	424.47
Pipe length	125
Pipe Entry Loss (K)	0.5
Pipe Exit Loss (K)	1
Velocity Head	1.32
Hf pipe Hentry Hexit H tot	0.57 0.66 1.32 2.55

WL in gate structure 427.02

Isolation Gate to Exit LDPS

WL in structure	427.02
Pipe length	350
Pipe Entry Loss (K)	0.5
Pipe Exit Loss (K)	1
Velocity Head	1.32
Hf pipe	1.59
Unatar	0.66

Hentry Hexit 0.66 1.32 3.57 H tot

WL in Structure 430.59

APPENDIX HH

BP Amoco Operating Plan For Wood River Facility Wastewater and Surge Management System

BP's Former Refinery at Wood River The Wastewater and Surge Management Systems May 2007

This summary is a description of:

- The sources of wastewater at the BP site
- The various pathways the wastewater takes to the treatment plant
- The general design principles involved
- The infrastructure of the systems
- The operating equipment and procedures

Introduction to the Wastewater System

The wastewater system manages a combination of sources, each with its own pathway. The wastewater from each source flows to the City of Wood River Publicly Operated Treatment Works (POTW). Under normal circumstances the bulk of the water comes from what had been BP's Main Plant. The BP facilities generate and/or manage wastewater in six ways:

- 1. BP's normal <u>combined sewer operation (CSO)</u> of sanitary waste and storm water flows into BP's main oil-water separator (OWS) found east of the railroad tracks near BP's main gate. The separated water is pumped in a 72-inch sewer to J-100, the POTW's lift station for BP's water. There generally is minimal product in the water, but if any separated product is present, it is skimmed off at the OWS and recycled.
- 2. The <u>Cone of Depression</u> (COD) system controls the movement of ground water by adjusting the subsurface hydraulic pressures. This is accomplished by pumping water out of the aquifer. The extracted water goes into BP's combined sewer system.
- 3. The <u>Hydrocarbon Recovery System</u> (HRS) extracts groundwater that contains product. The mixture is sent to a dedicated OWS, V-100, not the site's main OWS. The separated product is stored on site and eventually recycled. The separated water is sent directly to the POTW. This pathway bypasses the J-100 lift station and does not contribute to the required storage capacity of the lagoons.
- 4. The <u>Former Channel Seep Area</u> (FCSA) collects oil-water mixture from shallow wells north of the Riverfront E-W access road. The mixture is processed at its own dedicated OWS. The separated product is stored in that area for eventual recycling. The separated water is pumped through BP's lift station in that area to the POTW's lift station, J-100.
- 5. The Mississippi River Seep Area (MRSA) collects groundwater that may migrate to the edge of the river. There is a recovery trench below-grade near the river behind a sheet pile wall. Water is extracted and is sent by way of a forced main to the POTW's lift station, J-100.
- 6. During periods of heavy rainfall, shutdowns of the POTW, or excessive effluent from the BP facility, the flow is redirected from J-100 to the surge management system (Riverfront Basin System). When conditions permit, the stored, untreated water is channeled back from the basins to J-100, then from J-100 to the POTW for treatment.

Introduction to the Surge Management System

The surge management system is a linked arrangement of seven basin structures located in BP's Riverfront facilities. Historically, the basins were used as the former refinery's wasterwater settling lagoons. The system consists of a small entry chamber, four primary holding basins, 2 small transfer basins, connecting culverts, and an emergency discharge to the Mississippi River. The assembly of basins provides surge capacity for both the BP facility and the POTW. During periods of heavy rainfall, shutdowns of the POTW, or excessive effluent from the BP facility, the flow is redirected to the Riverfront Basin System. When conditions permit, the stored, wastewater is channeled back from the basins to the POTW for treatment.

Small entry chamber	Forebay	The Forebay is an open concrete chamber that links the POTW lift pump (J-100) with the Riverfront Basin System. It is part of the Penstock Building that also houses the City's pumps for the 84-inch sewer that discharges treated municipal water into the Mississippi River.
Primary holding basin 1	Temporary Surge Basin (TSB)	The TSB is an earthen basin of moderate capacity. It is the first basin in the array of seven basins for holding untreated water. The TSB is linked to the Forebay by a 72-inch sewer and to the first transfer basin by two 36-inch culverts.
Small transfer basin 1	Pond 2A	Pond 2A is a small, earthen basin that links the TSB and the second transfer basin. Relatively speaking, this basin has minor holding capacity.
Small transfer basin 2	Pond 3A	Pond 3A is also a small, earthen basin similar in size to Pond 2A. It links Pond 2A to the two major holding ponds.
Primary holding basins 2 and 3	East Surge Pond (ESP)	The ESP is a large, clay-lined basin of substantial capacity. Its capacity is divided between the main north pond and a smaller south pond. The larger pond of the ESP is linked to Pond 3A by two 36-inch culverts. The smaller pond of the ESP is linked to its larger pond by two 24-inch culverts.
Primary hold basin 4	West Surge Pond (WSP)	The WSP is not a single pond, but a meandering series of small, earthen ponds linked in series by short channels. The WSP is connected to the rest of the system with two 36-inch culverts. Under the emergency conditions, and with IEPA approval, the WSB can discharge directly into the Mississippi River by way of a control valve called #002 outfall. This outfall is operated under a permit from National Pollutant Discharge Elimination System (NPDES).

Primary lift station	J-100	The POTW owns and operates the primary lift station in the complex. It is located in BP's Korea Tank Farm. J-100 serves as the primary control point between BP's main facility, BP's Basin System, and the POTW.
Levee 1	Dike at WSP	This is the earthen dike protecting the WSP from a 15-year storm.
Levee 2	BP's flood protection levee	This is the earthen dike protecting the ESP, TSB, Pond 2A, and Pond 3A from a 100-year storm. BP's flood protection levee ties into the Wood River Levee District's levee.
Levee 3	Wood River Levee District's levee	This is the large earthen dike paralleling Route 3. It protects areas east from a 150-year storm.
Sewer 1	Wood River's discharge sewer	This is the 84-inch sewer that connects the Penstock Building to the Mississippi River.
Sewer 2	BP's sewer	This is the 72-inch sewer that connects the J-100 lift station, the Forebay, and the TSB.

The Basin System is, fundamentally, a gravity system. Normally, the water surface level is in equilibrium between the Forebay, the Temporary Surge Basin, Pond 2A, and Pond 3A. Typically, these four smaller structures are isolated from the East Surge Pond and the West Surge Pond. The ESP and WSP are utilized to control the water level in BP's sewer system. There are three fixed pumps in the system. Two of them transfer water from the larger pond of ESP to Pond 2A (see Pumps 1, 2 on attached schematic). The other fixed pump supplements adjacent gravity culverts by transferring water from the smaller pond of ESP to the larger pond of ESP (see Pump 3 on schematic).

Operating objectives

There are two operating objectives in management planning of the systems. The first is that the <u>Temporary Surge Basin shall not overflow</u>. Therefore, RCRA has stipulated a 2-foot freeboard in the TSB. BP has added a measure of safety and attempts to not allow higher than a 3-foot freeboard. The gauge for judging the appropriate level of the system is the ladder rungs in the Forebay. The proper height of ~419' MSL equates to 6 - 6.5 ladder rungs exposed in the Forebay.

A key piece of equipment in the execution of the first operating objectives is J-100. It is a lift station that houses two, high-capacity, variable-speed pumps that are owned and controlled by the POTW. BP and the POTW cooperate in judging the appropriate pumping rate for the ever-changing conditions. For example, lower rates divert water to BP's pond system. Higher rates cause the POTW to accept more water.

The second operating objective is to prevent degradation of the clay lining of the ESP. The primary way to accomplish this is to keep the clay lining from drying and cracking. In prevention, the water in the ESP is, typically, not drawn down any lower than a final depth of 1 foot.

Introduction to practical conditions

The following cases are detailed at the end of this report in the operating checklists. Here the cases are represented in an "issue-response" narrative.

Case 1: Rising levels of water in the Forebay caused by high flows from BP's combined sewer system. Response: Reduce inflows to the Forebay by having the POTW accept more water. If the POTW is taking as much as it can, then open the East Surge Pond. The POTW will receive more water if their J-100 pump is adjusted to a higher pumping rate. The East Surge Pond can receive water, by gravity, if the valves are opened between Pond 3A and the ESP. (See "Checklist A")

Case 2: A heavy storm is forecast. It is anticipated that the load from the municipality's combined sewer operations will exceed the POTW capacity.

Response: Increase capacity in the pond system to receive the increased load. Do this by lowering the level of the ESP. If there is enough time, use the following sequence: Pond 3A is isolated from ESP. Water is pumped out of ESP to Pond 2A (see Pumps 1, 2 on attached schematic) and sent, by gravity back through Pond 2A, the TSB, and the Forebay, to the J-100 lift station. From J-100 the water goes to the POTW for treatment. Treated water is then discharged into the Mississippi River through the municipality's 84-inch sewer. Note: Typically, the drawing down of the ESP is 3 inches for every 12 hours of pumping. (See "Checklist B")

Case 3: The POTW is planning a shutdown for periodic maintenance.

Response: Increase capacity in the pond system to receive the entire flow from the municipality's combined sewer operations during the planned shutdown. The preparation involves lowering the level of the ESP as described in Case 2, above. (See "Checklist B")

Case 4: It is forecast that the drawing down of the ESP will not be sufficient to absorb the inflows from a very heavy storm or a longer POTW shutdown.

Response: Increase capacity by lowering the level in the West Surge Pond. Use the following sequence: Isolate Pond 2A from the TSB. Allow the surface levels of WSP, ESP, Pond 2A, and Pond 3A to come to equilibrium. Isolate Pond 3A from ESP and WSP. Pump out ESP through 2A, TSB, and J-100. From J-100 the water goes to the POTW for treatment. Treated water is then discharged into the Mississippi River through the municipality's 84-inch sewer. (See "Checklist C")

Quick Facts about the Basin System

Purpose of Basin System	Provide storage capacity for wastewater	Supports BP and POTW
T ()	1995	Dredged East Surge Pond and installed the transfer sump/pumps.
Latest improvements	2006	Dredged the channel in the WSP at the culvert connecting the WSP to Pond 3A.
Freeboard	Prevent dike impingement and prevent overflow	BP attempts to maintain a 3-foot freeboard in the Temporary Surge Basin. This can be accomplished when the water level in the Forebay has approx. 6 to 6.5 ladder rungs exposed.
Number of basins	7	Entry chamber: Forebay Primary holding: Temporary Surge Basin (TSB), East Surge Pond (2 basins), West Surge Pond Transfer basins: Pond 2A, Pond 3A

Basin profile, typical

Top of embankment: 425' to 440' MSL Bottom of ponds: 400' to 413' MSL

Average operating range: 13 feet

Surface area, combined	46.6 acres	Nominal	
Design surge capacity	Temp Surge Basin East Surge Pond West Surge Pond	1.9 million gallons* 100 million gallons* 50 million gallons* *Actual capacity is to be determined by a survey.	
Connecting structures	Culverts with valves on most	TSB/Pond 2A = 2 @ 36", valved Pond 2A/Pond 3A = 4 @ 36", not valved Pond 3A/ESP = 2 @ 36", valved ESP/ESP South bay = 2 @ 24", not valved Pond 3A/WSP = 2 @ 36", valved	
Pumps	3	Pumps 1, 2 pump water from ESP to Pond 2A Pump 3 pumps water from the ESP's smaller south pond to its main north pond. (see attached schematic)	

Elevations and Flows of Basin System*

Source: Woodward-Clyde field memo, 10.3.95

posta andra anteres de men medemblement de	Top of embankment	Bottom of basin	Normal surface operating range	Maximum surface operating elevation	Transfer range	Transfer method	Culvert(s)	Culvert size	Comments
TSB				422' (4 rungs		Gravity			
102	425'	413'	419'- 421'	in forebay)	413'- 422'	014.10)	Forebay	1 @ 72"	No pumps installed
1.8 acres				To come common for consequences despelled judget a judget a	413'- 422'	Gravity	Pond 2A	2 @ 36"	No pumps installed
ESP	421'	400'	413'- 421'	421'	413'- 421'	Gravity	Pond 3A	2 @ 36"	Keeps bottom clay wet
12.2 acres + 5.4 acres	at the NE corner (lowest)			,	400'- 421'	Pump	Pond 2A	1 @ 36"	via lift station; used to lower ESP into Pond 2A
				_	>410'	Gravity	Pond 4 (S bay of ESP)	2 @ 24"	regel (1900) (1900) (1900) (1900) (1900) (1900) (1900) (1900) (1900) (1900) (1900) (1900) (1900) (1900) (1900)
2A	425'	408'	419'- 421'	422'	413'- 422'	Gravity	TSB	2 @ 36"	
0.24 acres	at N edge (lowest)			Temperaturan da managan da managan man	410'- 422'	Gravity	Pond 3A	4 @ 36"	(\$40) preserve appear dense as a more tree arrangement among a model factor as mill as and breelforce as blive
	, , ,				410'- 421'	Pump required	kanan kisanan en arausan arkalahan verakeren Med et akhil terberer	Hodelstore ₋ g is _e nganagan parent awar n	No pump installed
3A	421'	410'	419'- 421'	422,	413'- 422'	Gravity	Pond 2A	4 @ 36"	
0.15 acres				Full answeren been men blem of in left men errendel in linkelek	415'- 421'	Gravity	WSP	2 @ 36"	mantrenan urana urana (n. 1914 n. 1815). Massadre talpide labora dessa despete proporte laborato del telepode d
WSP	427'			425'	425'	Gravity	Mississippi		
26.8 acres				**************************************	415'- 425'	Gravity	Pond 3A	2 @ 36"	randra a sanara na marana a marana maka manana na marana a marana a marana a marana a marana da marana da mara
46.59 acres	•	•					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	name terresolucione III vedal i este deles I i de la re	katagan na amana kata kata kata kata kata na aman wa mata na kata na kata kata kata kata kata

^{*} All elevations are "above mean sea level". All elevations are to be verified by a survey.

CHECKLIST A: Rising levels of water in Forebay.

Forebay rung-to-elevation equivalents: 1 rung showing...... 425' MSL

are open.

GOAL: Prevent the TSB from exceeding the BP freeboard goal of 3 feet (RCRA freeboard limit is 2 feet).

SUMMARY OF ACTION: Reduce inflows to the Forebay by having POTW accept more water. If POTW is taking as much as it can then open ESP.

WARNING: The TSB and Forebay must not overflow. Within the limits of safety, the conditions at the TSB must be managed so that the TSB never overflows.

		3 rungs	423' 422' 421 420'			
1	Forebay	Record the height of water	Date:	Time:	Height: Trend: [rungs (from top)] Steady
			Operations	Technician:		Rising Falling
2	POTW	Ask POTW if they can increase their intake rate.	receive at l	should be able to east 3.6 million day from BP		
3	Facility	Curtail any waste water generation.	Examples: washdown.	Tank car cleaning or		
4	Forebay	Make sure both valves between the Forebay and TSB are open.			The gate	valves are normally open.
5	TSB	Make sure both valves between TSB and Pond 2A	THE STATE OF THE S	vania in prominino en el 1640 e el 1640	The gate	valves are normally open.

6	Forebay	Record the height of water	Date:	Time:	Height: Trend:	rungs (from top) Steady
			Operations Tech	hnician:] Rising] Falling
7	Pond 3A	If the flow problem persists, then open the valves between Pond 3A and ESP.		ne Forebay rease at 0.5-to-1 45 minutes, or if easing and 3.5-	manus la mari la	
8	Forebay	Record the height of water	Date: Operations Tech	Time: hnician:	Height: Trend:	rungs (from top)] Steady] Rising] Falling
9	Forebay	If the flow problem persists, then shutdown the COD system and close the outlet valve on BP's main OWS	May require two	o operators		own COD system outlet of main OWS
10	Forebay	Record the height of water	Date: Operations Tech	Time: hnician:	Height: Trend:	rungs (from top)] Steady] Rising] Falling
11	Forebay	If water level is falling, then open the outlet valve on BP's main OWS.	ин и ши био Либон Набон Набон Н _{ед Б} ойн, о _{то} рона а удраги и ши и	ananan da kanan manada manan da manan d	oocaanaanaalaanaa saad maanaanaa, aarasa	mantan engan penengan Mananan menungan menungkan Menungkan penengan penengan menggu
12	Forebay	Record the height of water	Date: Operations Tech	Time: hnician:	Height: Trend:	rungs (from top) Steady Rising
13	Pond 3A	If water surge is subsiding and water height is approaching normal, then reduce the flow to ESP by partially closing the valves between Pond 3A and ESP.] Falling

CHECKLIST B: To lower ESP to prepare for an impending storm surge or POTW outage

GOAL: Lower the level of ESP to increase storage capacity.

SUMMARY OF ACTION: Pond 3A is isolated from ESP. Water is pumped out of ESP to Pond 2A and sent, by gravity, back through Ponds 2A, the TSB, and Forebay, to the J-100 lift station. From J-100 the water goes to the POTW for treatment. Treated water is then discharged into the Mississippi River.

ESTIMATED DURATION TO ACHIEVE GOAL: Drawdown rate = 3 inches per 12 hours. Normally the pumps are operated only during daylight hours.

1	Operations Technician	Record the project particulars from a briefing from the Operations Supervisor.	Briefing: COD shutdown?: Y N Target time to begin pumping: Duration of pumping each day: Target elevation at ESB staff gaug	e:
2	POTW	Telephone and email the POTW operators: (1) If COD is to be shutdown advise POTW of that impending shutdown. (2) Advise POTW of impending reverse transfer of water from ESP.	Send a confirming email to POTW operations center, site contractor's supervisor, and site contractor's project manager. NOTE: See Script 1 at the end of this checklist for a copy of the confirming email.	VERBAL CONTACT Operations Tech: Time: Date: WRITTEN OR EMAIL CONFIRMATION Confirmation sent: Y N
3	Cone of Depression (COD) system	If Operations Supervisor briefed a COD shutdown, then use the COD shutdown procedures. If Operations Supervisor briefed no shutdown, then GO TO Step #4		The shutdown of the COD is not likely. If it is shutdown, it may remain shutdown during the entire time additional storage capacity is required at the ESP.
4	J-100	Confirm that J-100 is ready to receive flows from Forebay.		J-100 is a variable speed pump. The POTW controls its speed. In this

					case the POTW will increase the pumping rate.
	5	POTW	If COD <u>has not</u> been shutdown, then GO TO Step #6.		and and an earliest of the second of the second and an earliest of the second and
			If COD <u>has</u> been shutdown, then telephone and email the POTW operators. Advise them that the COD shutdown has been completed. Advise	Send a confirming email to POTW operations center, site contractor's supervisor, and site contractor's project manager. NOTE: See Script 2 at the end	VERBAL CONTACT Operations Tech: Time: Date:
			them of impending controls set-up and the reverse transfer from ESP.	of this checklist for a copy of the confirming email.	WRITTEN OR EMAIL CONFIRMATION Confirmation sent: $\square Y \square N$
	6	Pond 3A	Make sure the two 36" culverts between Pond 3A and ESP are closed.		The gate valves are normally closed.
	7	Pond 3A	Make sure the two 36" culverts between Pond 3A and WSB are closed.		The gate valves are normally closed.
e de la companya de l	8	Pond 2A	Make sure the two 36" culverts between Pond 2A and the TSB are open.		The gate valves are normally open.
**************************************	9	Forebay	Make sure the gate valves between TSB and Forebay are open.		The gate valves are normally open.
The state of the s	10	ESP	Operate either Pump 1 or Pump 2.	Select the pump with the lowest number of hours.	The default timer for the pumps is 24 hours.
					Pump controls are located on the west shore of ESP. Go to Table 1. Record the starting ESP water elevation and time in row 1 of Table 1.
	11	ESP	Pump water out of ESP until	Every 4 hours record the ESP's	Record data when transfer is

taadistassa di sakkasa jakadisiin oli dasaanaan kasaanaan kanaan illis tii Pichindiserii Medalalii seballii	the surface elevation reaches the target set in Step #1.	elevations on Table 1. Use the ESP staff gauge.	complete: Elevation: Time: Date:
☐ 12 POTW	Notify POTW that the ESP is ready to receive the anticipated surge.	Send a confirming email to POTW operations center, site contractor's supervisor, and site contractor's project manager.	VERBAL CONTACT Operations Tech: Time: Date:
		NOTE: See Exhibit 2 at the end of this checklist for a copy of the confirming email.	WRITTEN OR EMAIL CONFIRMATION Confirmation sent: $\square Y \square N$

Script 1: Text for email sent to POTW at the beginning of the transfer sequence

"Please be advised that BP's site contractor will now commence procedures to adjust its systems to transfer water from the East Surge Pond into the POTW. We will notify you at established set points in the procedure. We will not begin the reverse transfer until we receive authorization from you that the POTW is ready to receive the flow. Our pre-transfer procedures will take approximately xx hours."

Script 2: Text for email sent to POTW after the pumping is finished

"Please be advised that BP has now completed the pumping of ESP to the agreed level."

Table 1: ESP record of elevations during pump-down.

 ESP surface elevation
 Time
 Date
 Operations Technician

 1
 Start:

 2
 3

 4
 5

 6
 7

 8
 9

 10
 11

 12
 13

 14
 15

End of checklist

CHECKLIST C: Lower the water level in West Surge Pond to prepare for a very heavy storm surge or extended POTW outage.

GOAL: Lower the level of WSP to increase storage capacity.

SUMMARY OF ACTION: Lower the surface level of ESP. Isolate Pond 2A from the TSB. Allow WSP, ESP, Pond 2A, and Pond 3A to come to equilibrium. Then isolate Pond 3A from ESP and WSP. Pump out ESP through Pond 2A, TSB, and J-100, to POTW for processing. Processed water is then discharged to the Mississippi River.

	1	East Surge Pond	Execute the checklist "To lower ESP"		
	2	Pond 2A	Close the two 36" culverts	al laturu naturuta la Hundi at Apolipia di sedur-assoli pratici in Naturi labilan la filipi en et elemente la latura di Naturi pia provinci processioni.	Valves normally open
			between Pond 2A and the		~ ^
			TSB.		
	3	Pond 3A	Open the two 36" culverts		Valves normally closed.
No. and			between Pond 3A and WSP.		
	4	Pond 3A	Open the two 36" culverts		Valves normally closed
وروانورا المادية والمواورة	*************		between Pond 3A and ESP.		
	5	All ponds	Allow the ponds to come to	Monitor the staff gauges in the	Record the progress on Table 2
	manadanan madilari	alah (diahaha))) jahiji jahiji jahi jahi jahi jahiji jahiji jahiji jahiji jahi jah	equilibrium.	ESP and WSP.	below.
	6	Operations	Receive authority to proceed		
		Technician	from the Operations		
			Supervisor.		
	7	Operations	If necessary, GO TO "Lower		
		Technician	ESP checklist", Step 1		

Table 2: Monitoring the equilibrium of ESP and WSP.

the server by bernersystemed	ESP	WSP	na pelpetrostrostrostrostrostrostros paraceranas analas an esta esta esta esta esta esta esta esta	निर्मानी है ने किस्ता महिला को कार्य प्राप्त कार्य	
	surface	surface			
	elevation	elevation	Time	Date	Operations Technician
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2					
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End of checklist

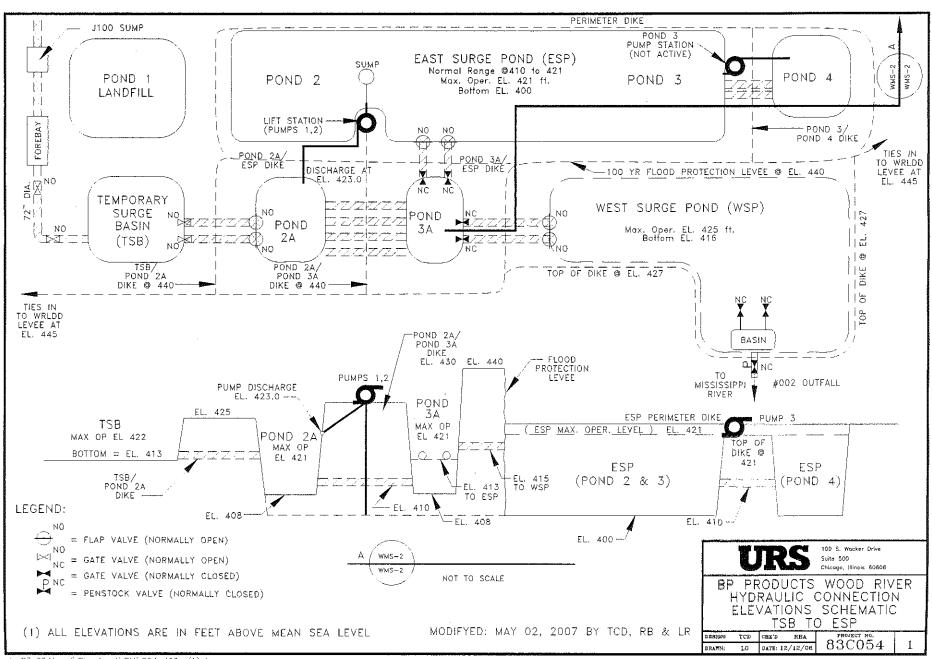
CHECKLIST D: Discharge directly to the Mississippi River from the West Surge Pond

GOAL: In an extreme emergency it may be required to discharge the WSP directly to the Mississippi River. This checklist guides that action.

SUMMARY OF ACTION: This action requires the approval of the Site Remediation Consultant, Site Contractor's Manager, BP's Site Manager, and the Illinois Environmental Protection Agency.

	1	Operations Technician	Receive authorization to proceed from the Operations	Name of technician:	
			Supervisor, Site Contractor's	Name authorizing:	
			Manager, OR BP's Site	Date:	
colores <u>estado lo t</u> elescocolos		emangemblaneshi sa keenga alamankeeh olamada anda tarai at ba ali bengan amaa a	Manager	Time:	
	2	Operations	Determine that there is a safe	The valve is at #002 Outfall,	
		Technician	access path to the valve.	west of WSP at the Mississippi	
	ndelselsenseslessel-med	والمستعدد والمحاودة والمناطعة والمستعدد والمستعدد والمستعدد والمراط والمراط والمراط والمناط والمستعد	HERETA BURI BURIN BURIN BURIN DE SE DE SE	River.	un aus para anno ann agus agus ar aistean agus ar agus ar agus agus an ann ar an
	3	Operations	Determine that there is a safe		Extreme care must be exercised to
		Technician	egress path from the valve.		avoid a situation where there is a
					risk of being overrun by rising
.lm.adamaa.malam				unantunantunantunantun ja valataiten ja valataisia ja	waters.
Ш	4	Operations	Continuous telephone or radio	The telephone or radio contact	
		Technician	contact must be maintained	can be with the Operations	
			throughout the remainder of	Supervisor, the Site Contractor's	
			this procedure.	Manager, or the BP Site	
		neaumeanneaumeanneaumeanneaumeanneaumeanneaumeanneaumeanneaumeanneaumeanneaumeanneaumeanneaumeanneaumeanneaume		Manager.	
	5	Operations	Open the valve at #002 outfall	Time:	
·		Technician	the control of the co	Date:	nuunun kanuun muun maanamaan maanan maana
	6	Operations	Continue to monitor the	Monitoring stopped at	
		Technician	outfall operations and the flow	Time:	
	January	чения выполнения выполнения выполнения выполнения выполнения выполнения выполнения выполнения выполнения выпол В применя выполнения выполнения выполнения выполнения выполнения выполнения выполнения выполнения выполнения в	Zone.	Date:	NOTE STORE A STANSBOOK OF THE STANSBOOK

End of checklist End of section



APPENDIX II

Construction Cost Breakdown Spreadsheets for Option IV.A. with Option VIII.A.

Horner and Shifrin, Inc.

5200 Oakland Ave. St. Louis, MO 63110

Wood River, Illinois CSO LTCP BUDGETARY OPINION OF PROBABLE CONSTRUCTION COST

For Option IV.A. - Use of BP Riverfront Storage Ponds Only

Proj. No. 05.119
Wood River CSO LTCP
Estimate By: LAE
May 7, 2007

(x)	CONCEPT DESIGN	()	PRELIMI	NARY DES	IGN	
	ESTIM. QTY. ESTIM. UNIT COSTS (\$)					
NO.	ITEM DESCRIPTION	No. of Units	Unit Measure	\$ per Unit	Total \$ for Line Item	TED ITEM
1	Demo. & Removal of Exisitng Improvements	1	LS	25,000	25,000	\$ 25,000
2	Mobilization	1	LS	100,000	100,000	\$ 100,000
3	Modify Exist. Div. Str. To WWTP's (on 84" Sewer) Wall Height	1	LS	170,000	170,000	\$ 170,000
4	New Structure to Divert 84" City Sewer to 72" BP Sewer *	1	LS	400,000	400,000	\$ 400,000
5A	New ElectrOper. 84" Sq. Sluice Gate for Above Structure **	1	Each	40,000	40,000	\$ 40,000
5B	New ElectrOper. 72" Sq. Sluice Gates for Above Structure **	2	Each	30,000	60,000	\$ 60,000
6	Replace Ex. Sluice / Check Gate 2 at WRD&LD P.S. Forebay **		Each	60,000	60,000	\$ 60,000
7	Replace Ex. BP Pumps at East Surge Pond (see Note 1.)					\$
8	New Flowmeter Structure and Flowmeter (FE4) in 72" BP Sewer *	1	LS	120,000	120,000	\$ 120,000
9	Modify Exist. J-100 P.S's (on 72" Sewer) Wall Height	1	LS	80,000	80,000	\$ 80,000
10	Modify Exist. J-100 Pumps for New Structure Height	2	Each	25,000	50,000	\$ 50,000
11	New PLC-based I & C System (incl. devices, wiring & progr'g) **	1	LS	75,000	75,000	\$ 75,000
	SUBTOTAL		2 230			\$ 1,180,000
	GEN. COND'NS, BONDS & INSUR. @ 5%		COLLA T			\$ 59,000
	SUBTOTAL			M TO		\$ 1,239,000
	CONTRACTOR O.H. & PROFIT @ 15%				WAS VENEZE	\$ 185,850
	SUBTOTAL	ANT .	47- 24			\$ 1,424,850
	CONSTR. CONTINGENCY @15%		10 100	S Month	7197	\$ 225,150
	TOTAL ESTIMATED CONSTRUCTION COST	C I I WICE				\$ 1,650,000

REMARKS:

Note 1. Cost estimate assumes that stored W.R. combined sewage will be "bled back" through exist. WWTP by exist'g J-100 pump station and without any capacity increase for exist'g WWTP; which also means. that 1,700 gpm-capacity BP pumps in East Surge Pond do not need to be replaced.

^{*} all new structure costs include excavation, reinf. conc., backfill & misc. items (grating, H.R., etc.).

^{**} all equipment costs include installation.

HORNER & SHIFRIN, INC. 5200 Oakland Ave., St. Louis MO 63110 640 Pierce Boulevard, Suite 200, O'Fallon IL 62269	SHEET NO 1 OF 6 JOB NO. 95.119
Wood River CSO LTCP	BY LAE DATE 5-7-07 CHECKED DATE
Rough, Qvick Quantity To stimute Item No.	Ke-offs - OPTION IV.A. Alone
(3) Add at 15 ft. of height to ex flow from w.F. 84" comb Prelim. Trest mut for	ist. Diversian Box (directing sined Sewer into 24 "sewer to cilities:
Per attached dwgs. simply sections up is <u>Not</u> feasilleck)!	extending exist a M.H. riser ble (mainly becouse the "wals" would
It will be necessary to reinf. canc. structure are This structure would most box founded an Arilled	"doghouse" on mentively new ound the exist of Diversion M.H. likely be a 12ft. x 12ft. piers/cissens.
18"(Typ)	EL.445.0

12" interior woll

EL. 410. +

PLAN

HORNER&SHIFRIN,INC.
HORNER & SHIFRIN, INC. 5200 Oakland Ave., St. Louis MO 63110 640 Pierce Boulevard, Suite 200, O'Fallon fl. 62269

SHEET NO 2 OF 6 JOB NO. 05.119

TITLE:

SUBJECT FILE

Wood River &SO LTCP

BY LAE DATE 5-7-07 CHECKED

OPTION IV.A.

Estimate
Item No.

(3) (cont'd)

REINF. CONC.

WALLS: \{\begin{aligned} 2 \times \left(12' \times 1.5' \times 35' \right) \right\} / 27 = \left(1260 + 1575 \right) / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 35' \right) \right\} / 27 = \left(105 \times 1.5' \times 1.

FOOTINGS: [3'x6'x (12+12+15+15)] /27 = (18×54) (27 = 36 C.Y.

TOTAL REINF CONC. = 141 C.Y. @ \$600/ C.Y. = \$85 K

DPILLED PIEPS/CAISSONS

2 @ Ee. Corner + 4 on each side (along & of 84") =

8 + 8 = 16 × sey 30 ft. / each = 480 v.f. @ #150/v.f. =

\$72 K

TOP GRATING

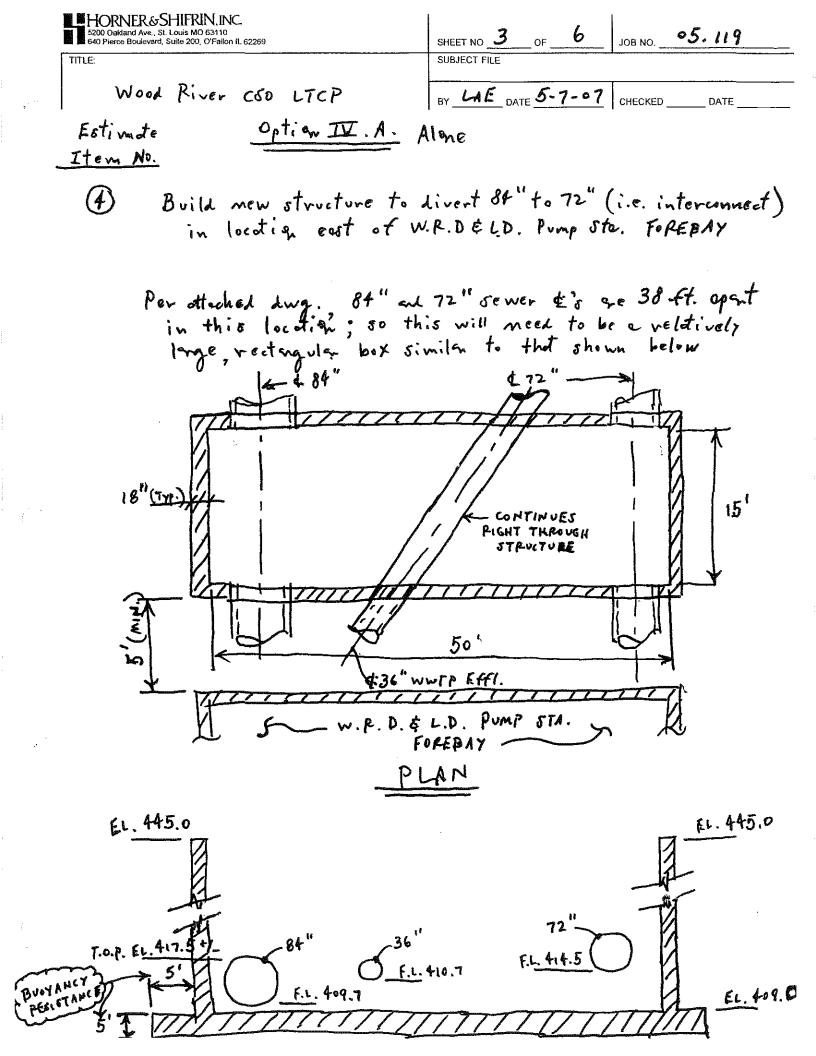
12'x12'= 144 sq.ft. x \$25 / sq.ft. = \$4 K (for fibergloss)

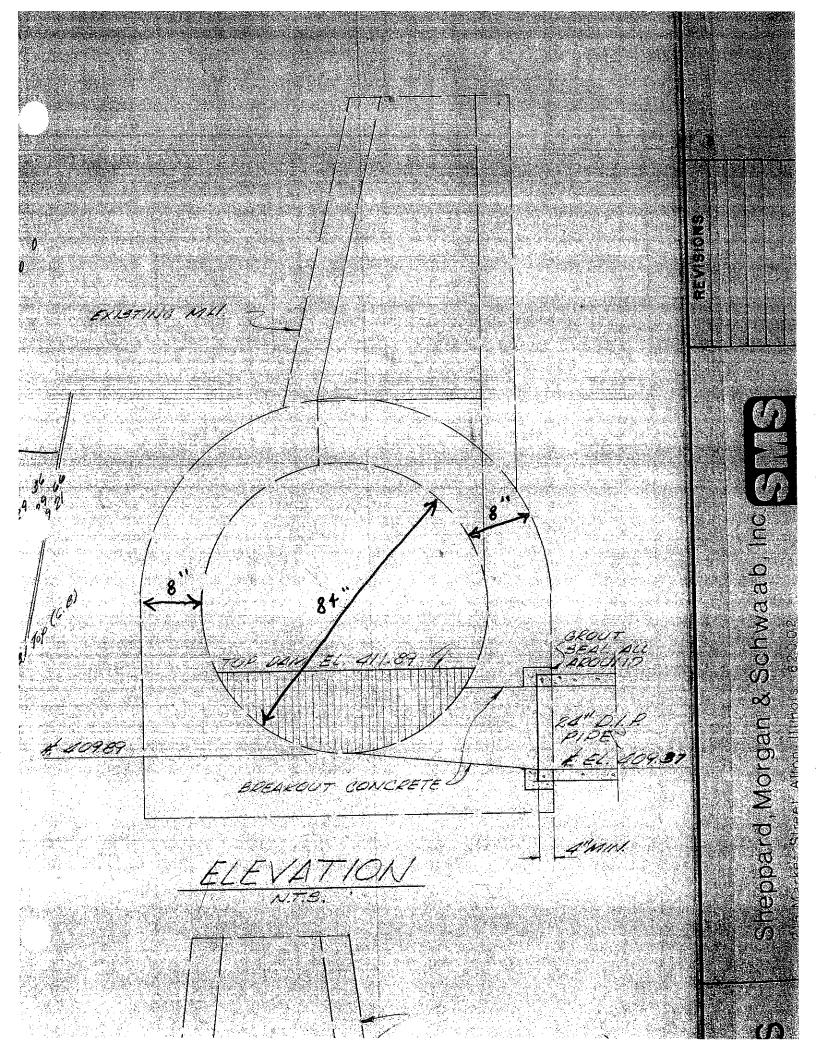
MIJC. METALS

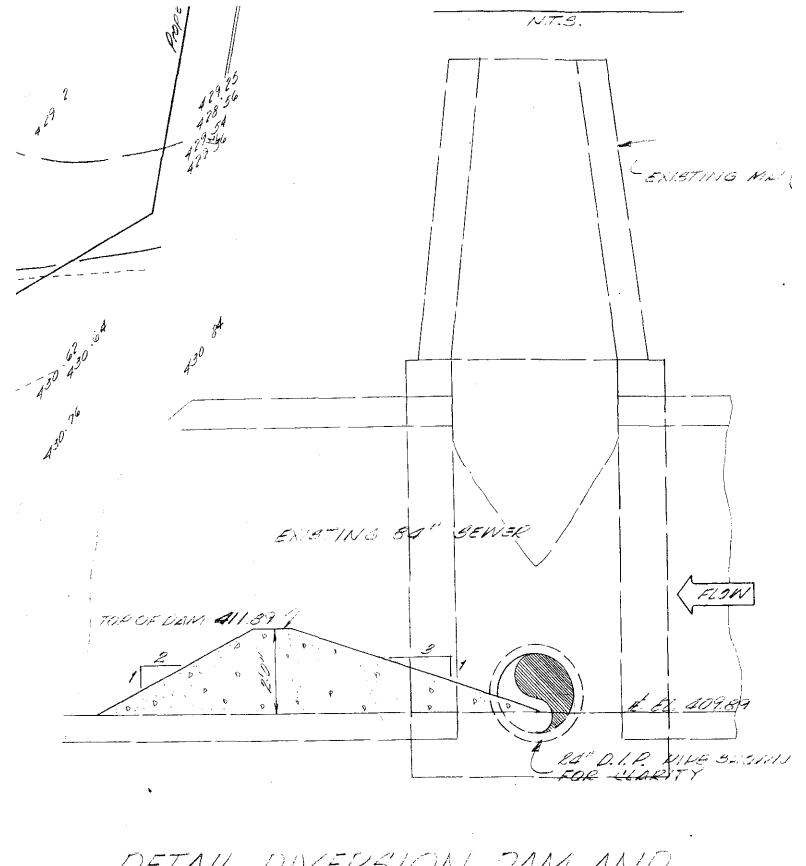
Access Ladder up outside wall + -> ser #9K

M.H. rungs & inside wall

So, total estimated constr. cost = \$85+72+4+9 = \$170 K

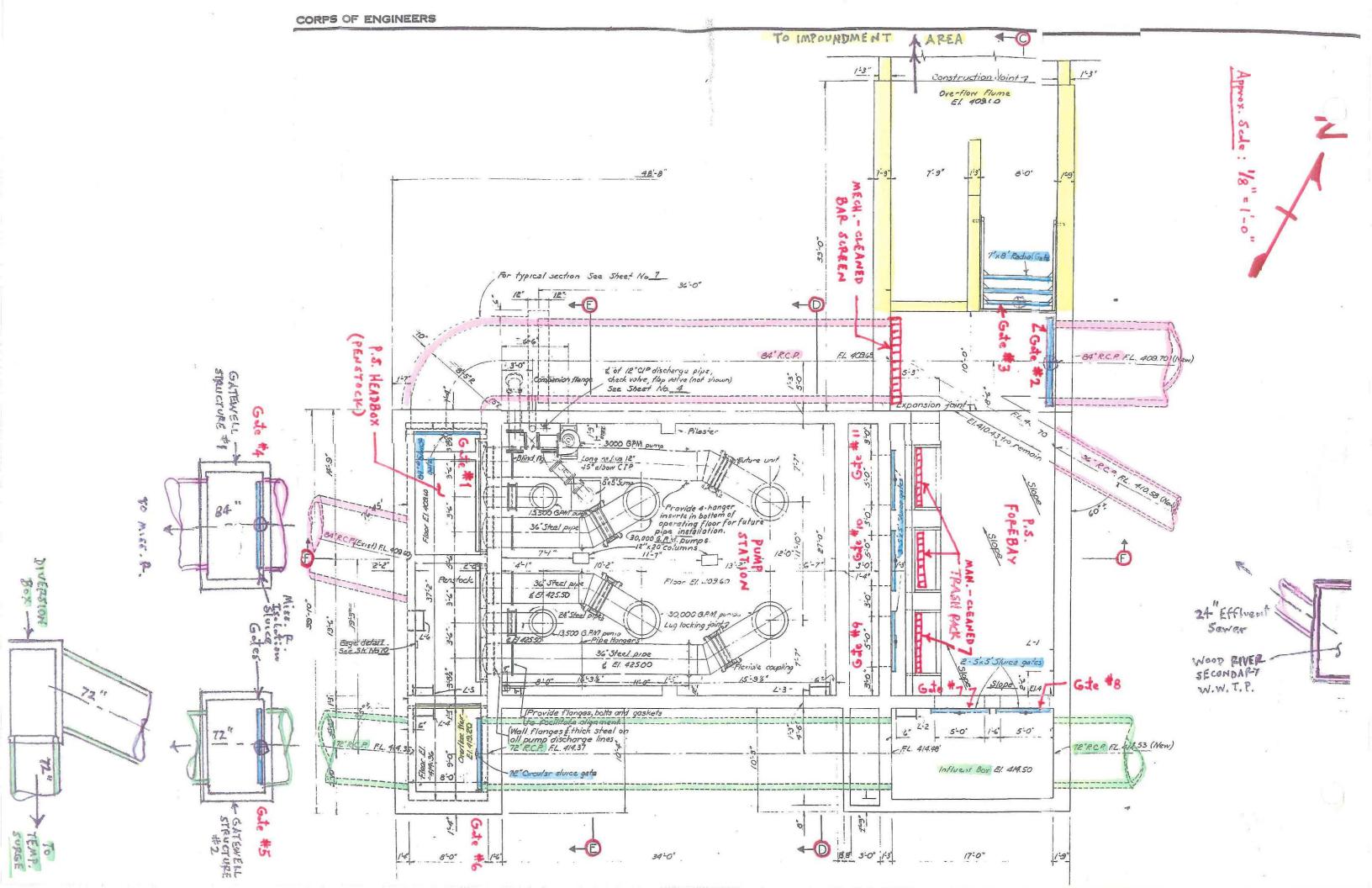






DETAIL DIVERSION DAM AND
INTERCEPTOR SENER COMMECTION
N.T.S.

tania de la composición dela composición dela composición dela composición dela composición de la composición dela composición de la composición dela composición de



HORNER & SHIFRIN. INC. 5200 Oakland Ave., St. Louis MO 63110 640 Pierce Bouleverd, Suite 200, O'Fallon IL 62269	SHEET NO
TITLE:	SUBJECT FILE
Wood River CSO LTCP	DV LAE DATE 5-7-07

BY LIE DATE 5-7-07 CHECKED DATE

JOB NO. 95, 119

OPTION IV.A. Alone

Estimate

Item No.

(4) (cont

4 (contod)

REINF. CONC.

FOUNDATION SLAB (MAT): (63 × 28 × 5 1) / 27 = 327 C.Y.

WALLS: \[\leq 2 \times \left(18 \times 1.5 \times 26 \times \right) + 2 \times \left(50 \times 1.5 \times 26 \times \right) \right\ri

Top GRATING

50×15 = 750 sq.ft. x \$50/sq.ft. = \$40K

(for fiberglass with
intermed. support beaus)

MISC. METALS

Access ladder up ortside wall t -> sey \$10 K

80, total estimated constr. cost = \$300 + 40 + 10 = \$350 K.
[mot included sluice (control) gates]

PLUS WALL FITTINGS & SPECIAL ISSUES ASSOCIATED

WITH "LIVE" 36" SEWER TRAVERSING

THROUGH STRUCTURE -> 527 \$50K

GRAND TOTAL = \$400K

HORNER&SHIFRIN,INC.
HORNER & SHIFRIN, INC. 5200 Oakland Ave., St. Louis MO 63110 640 Pierce Boulevard, Suite 200, O'Falton IL 62269

SHEET NO 5 OF 6 JOB NO. 05.119

TITLE:

Wood River CSO LTCP

BY WE DATE 5-8-01 CHECKED DATE

OPTION I.A. Alane

Estimate Item No.

- Per telephone quote from MEC (P. Lyerle),

 CACh 84" sq. slvice ate (electr. operated) and
 each 72" sf. slvice ate (electr. operated)
 would sell for ~ \$25K AND installation cost

 "after" would be don't 50% of sell price (or \$15K)

 So, installed cost per ate = \$40K (84")

 \$10K
- Per e-mil quote from Red Volve (K. Woods),

 an 84" File-Flex" (duck-billed) check volve

 would sell for a \$50K, App installation cout "odder"

 would be don't 20% of sell price (or \$10K)

 so, installed cost for 84" Tide-Flex = \$60K]
- Per telephane quote from MEC (R. Lyenla) so

 72" w. open channel flow moter would sell for \$15 K,

 AND installation cost "odder" would be don't 35% of

 sell price (or \$5 K).

So, installed cost for flowmeter = \$20 K

Assume structure to house flow meter would be voughly some cost to construct of Item 3 = \$ 100 K.

So total estima austra cost for this item = \$ 120 K.

SHEET NO 6 OF 6 JOB NO. 05. 119

TITLE:

Wood River CSO LTCP

BY LAE DATE 5-7-07 CHECKED DATE

OPTION IV.A. Alene

Estimate Item No.

NO constr. dwgs. have been located (by either BP or wood River staff) for this structure.

So, assume that this structure is roughly 15 ft. x 25 ft. in size, with 18" thick reinf. canc. wells, AND that this structure was originally designed with adequate fectors of safety so that the existing wells can simply be extended up by 15 ft.

PENF. COMC.

WALLS: $\left\{2 \times \left(15' \times 1.5' \times 15'\right) + 2 \times \left(28' \times 1.5' \times 15'\right)\right\} / 27 =$ $\left(675 + 1260\right) / 27 = 72 \text{ c.y.}$

50, conc. constr. cost = 72 c.y. x \$600/c.y. = \$45K

Also assume that the steel frame supporting the current J-100 pumps can be disassembled and then re-assembled at the new pump setting elevation; but that this frame will have to "beefed-up" with supplem's steel members to support larger (= heavier) modified J-100 pumps say cost of all of this = \$35 K

Therefore, total estim. cost = \$45+35= \$80K

Per telephone conversition with P. Lyerla (MEC), cost to "lengthen setting" of J-100 pumps for increased will height of wet well should be approx. \$25K per pump.

Horner and Shifrin, Inc.

5200 Oakland Ave. St. Louis, MO 63110

Wood River, Illinois CSO LTCP BUDGETARY OPINION OF PROBABLE CONSTRUCTION COST

For Option VIII.A. w/ Option IV.A. - Use of BP Storage Ponds + New Wet Weather Treat. System

Proj. No. 05.119
Wood River CSO LTCP
Estimate By: LAE
May 8, 2007

(Use of BP Storage Ponds Element)

	S FOR ESTIMATE:) CONCEPT DESIGN () PRELIMINARY DESIGN						
		ESTIM. QTY. ESTIM. UNIT COSTS (\$)					
ITEM	ITEM DESCRIPTION	No. of	Unit	\$ per	Total \$ for	ES	STIMATED ITEM
NO.		Units	Measure	Unit	Line Item	C	ONSTR. COST
1	Demo. & Removal of Exisitng Improvements	1	LS	50,000	50,000	\$	50,000
2	Mobilization	1	LS	100,000	100,000	\$	100,000
3	Modify Exist. Div. Str. To WWTP's (on 84" Sewer) Wall Height	1	LS	170,000	170,000	\$	170,000
4	New Structure to Divert 84" City Sewer to 72" BP Sewer *	1	LS	400,000	400,000	\$	400,000
5A	New ElectrOper. 84" Sq. Sluice Gate for Above Structure **	1	Each	40,000	40,000	\$	40,000
5B	New ElectrOper. 72" Sq. Sluice Gates for Above Structure **	2	Each	30,000	60,000	\$	60,000
6	Replace Ex. Sluice / Check Gate 2 at WRD&LD P.S. Forebay **	1	Each	60,000	60,000	\$	60,000
7	Replace Ex. BP Pumps at East Pond (Flow Return to WWTP) **	2	Each	80,000	160,000	\$	160,000
8	New Flowmeter Structure and Flowmeter (FE4) in 72" BP Sewer *	1	LS	120,000	120,000	\$	120,000
9	New Wet Weather Treat. System Div. Str. On 72" Sewer *	1	LS	110,000	110,000	\$	110,000
10	New ElectrOper. 72" Sq. Sluice Gate for Above Structure **	1	LS	60,000	60,000	\$	60,000
11	Modify Exist. J-100 P.S's (on 72" Sewer) Wall Height	1	LS	80,000	80,000	\$	80,000
12	Modify Exist. J-100 Pumps for New Structure Height	2	Each	25,000	50,000	\$	50,000
13	New Wet Weather Treat. System Feed P.S. Wet Well (by J-100 P.S.) *	1	LS	130,000	130,000	\$	130,000
14	New Wet Weather Treat. System Feed Pumps ** [See Note 1.]	2	Each	80,000	160,000	\$	160,000
15	New 21" F.M. From New P.S. (by J-100) to Wet Weather Treat. System	200	LF	150	30,000	\$	30,000
16	New PLC-based I & C System (incl. devices, wiring & progr'g) **	1	LS	125,000	125,000	\$	125,000
	SUBTOTAL			ELE SI		\$	1,905,000
	GEN. COND'NS, BONDS & INSUR. @ 5%		TO NE		te in the constitution	\$	95,250
	SUBTOTAL					\$	2,000,250
	CONTRACTOR O.H. & PROFIT @ 15%	r Charles	STYLES.			\$	300,038
	SUBTOTAL	gatted.				\$	2,300,288
	CONSTR. CONTINGENCY @15%	10 M				\$	334,712
	TOTAL ESTIMATED CONSTRUCTION COST				Nice Control	\$	2,635,000

REMARKS:

- * all new structure costs include excavation, reinf. conc., backfill & misc. items (grating, H.R., etc.) .
- ** all equipment costs include installation.
- Note 1. Capacity (and cost) of these pumps is directly related to selected capacity of new wet weather treatment system, which (per Section VIII. text) was selected at 8 MGD (5,600 gpm) which also means that existing 1,700 gpm-capacity BP pumps in East Surge Pond must be replaced with new pumps also of 5,600 gpm capacity.

SHEET NO OF 1 JOB NO. 05. LL?

TITLE:

WOOD RIVER CSO LTCP

BY LAE DATE 5-8-01 CHECKED DATE

Pough, Quick Quantity Toke-offs — Option IV. A. w/ option VIII. A

Estimate

[Storage Element]

Estimate
Item No.

NOTE: Items for this estimate are some of option IV. A. dense except for those Item Nos. below.

- Per telephone quote from MEC (R. Lyerla),
 each 5,600 gpm vs. 5. ft. TPH pump (w/ control panel)
 would sell for ~ \$80K INSTALLED!
- This structure would be similar to Item No. I in constr. cost estimate for Option IV. A. Idone, except that structure would be significantly "footprint" (say 10 ft. x 20 ft.) = 200 sq.ft. vs. 750 sq.ft. for Jo, proportional constr. cost would be 200/150 x \$400 K = \$110 K
- 13) New reinf. enc. wet well for Wet weather Treat. System
 Fred pumps would do be similar to Item 9 dove,
 so assumed easter ast * 4 30 K

Horner and Shifrin, Inc.

5200 Oakland Ave. St. Louis, MO 63110

Wood River, Illinois CSO LTCP BUDGETARY OPINION OF PROBABLE CONSTRUCTION COST

For Option VIII.A. w/ Option IV.A. - Use of BP Storage Ponds + New Wet Weather Treat. System

Proj. No. 05.119
Wood River CSO LTCP
Estimate By: LAE
May 8, 2007

(New Wet Weather Treatment System Element)

The second secon	FOR ESTIMATE: CONCEPT DESIGN	()	PRELIMI	NARY DES	IGN	
		ESTIM. QTY. ESTIM. UNIT COSTS (\$)				
ITEM NO.	ITEM DESCRIPTION	No. of Units	Unit Measure	\$ per Unit	Total \$ for Line Item	ESTIMATED ITEM CONSTR. COST
1	Mobilization	1	LS	100,000	100,000	\$ 100,000
2	New Reinf, Conc. Screening / Flow Splitter Str. For BHRC Treat. Systen	1	LS	400,000	400,000	\$ 400,000
3	New Coarse Screen Equipment in Above Structure **	1	Each	220,000	220,000	\$ 220,000
4	New Flow Meter Equipment in Above Structure **	1	Each	20,000	20,000	\$ 20,000
5	New Painted-Steel Tanks to "House" BHRC Treat. Equip. * [See Note 1	1	LS	390,000	390,000	\$ 390,000
6	New BHRC Treatment System Equipment ** [See Note 2.]	1	LS	600,000	600,000	\$ 600,000
7	New Pump at Ex. WWTP to Send Return Sludge to BHRC Units **	1	Ea.	50,000	50,000	\$ 50,000
8	New Reinf. Conc. Basin for Disinf. Agent Contact * [See Note 3.]					\$ -
9	New UV Disinfection Equipment ** [See Note 3.]					\$ -
10	New Pipe / Fittings / Valves to Connect Above Tanks / Structures	1	LS	150,000	150,000	\$ 150,000
11	New PLC-based I & C System (incl. devices, wiring & progr'g) **	1	LS	50,000		
	SUBTOTAL				THE PARTY OF	\$ 1,980,000
	GEN. COND'NS, BONDS & INSUR. @ 5%	J. V. S. 2019	an mean			\$ 99,000
	SUBTOTAL		E 54 W		Later of the later	\$ 2,079,000
	CONTRACTOR O.H. & PROFIT @ 15%	Park Inch	NAME OF			\$ 311,850
	SUBTOTAL	The second	Garage.			\$ 2,390,850
	CONSTR. CONTINGENCY @15%	Na West	DELVICE OF			\$ 362,150
	TOTAL ESTIMATED CONSTRUCTION COST		yka ten deki	W West Lond		\$ 2,753,000

REMARKS:

Note 1. assumes that BHRC system is furnished (incl. all tankage) as a factory-fabricated "package" system

Note 2. Refer to attached scope of supply and price quote from Kruger, Inc. for ACTIFLO's BHRC treatment system equipment ONLY, designed to treat 15 MGD which was scaled down to 8 MGD.

Note 3. assumes that BHRC effluent would be conveyed back to exist'g WWTP chorination facilities (modified to use UV).

^{*} all new structure costs include excavation, reinf. conc., backfill & misc. items (grating, H.R., etc.) .

^{**} all equipment costs include installation.

HORNER&SHIFRIN.INC.	
HORNER & SHIFRIN, INC. 5200 Oakland Ave., St. Louis MO 63110 640 Pierce Boulevard, Suite 200, O'Fallon IL 622	69

SHEET NO 1 OF JOB NO. 95. 119

TITLE:

WOOD PIVER CSO LTCP

BY_LAE DATE 5-8-07 CHECKED DATE

Pough, Quick Quantity Take-offer - OPTION IV. A. W OPTION VIII. /

(Treatmut Element?

Estimate Item No.

Assume this structure will be very similar in size to Item No. 4) in const. cost estimate for option II.A. More (15'x 50' structure to livent 84" into 72")

so, estim out = #400 K

- 3) Per telephone quote from MEC (R. Lyerla), the INSTALLED cost (from a recent, similar MEC project)

 of a 6 ft. w. screen in an 8 ft. deep channel up/

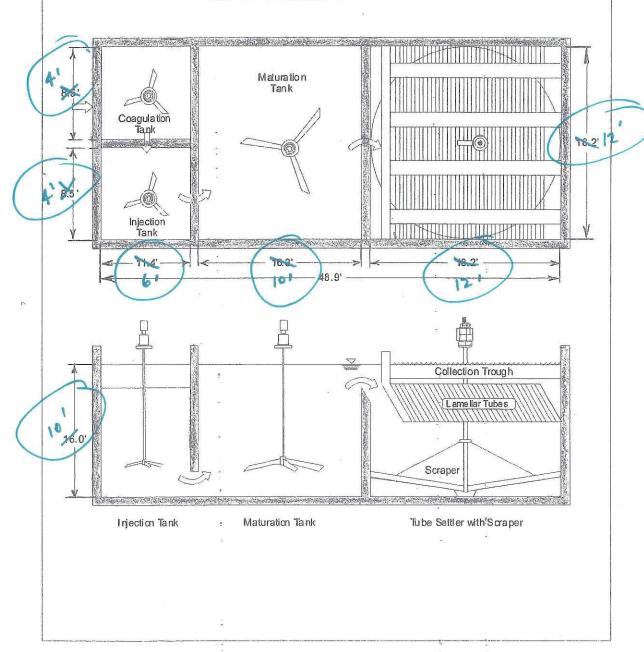
 3/16" bor spacing and ~ 20 ft. from F.L. to grade

 was # 220 K.
- 5) Dimensions of veg'd steel tankage (per attached "scoled" down ACTIFED quote dwg.) result (assuming 1/2" thick steel plate) in the following steel manuals:

 $4 \times (12 \text{ ft.} \times 10 \text{ ft.}) + 2 \times (10 \text{ ft.} \times 10 \text{ ft.}) + 2 (12 \text{ ft.} \times 10 \text{ ft.}) + 1 (4 \text{ ft.} \times 10 \text{ ft.})$ + $(28 \text{ ft.} \times 12 \text{ ft}) = 480 + 200 + 240 + 40 + 330 = 1,300 \text{ sq. ft}$ $6300 \text{ K} \neq 5300/\text{sq.ft}$

Preliminary ACTIFLO Single Train Layout Wood River, IL

Wood River, IL
Total Capacity: 10,400 gpm
No. of Trains: 1



Rebecca Hoffmann

From:

Ken Ressler [kressler@resslerassociates.com]

Sent:

Monday, April 30, 2007 12:47 PM

To:

Rebecca Hoffmann (E-mail)

Cc:

Jeremey Lay (E-mail); Andy Szekeress (E-mail)

Subject:

FW: ACTIFLO Satellite Wet Weather Installations

Follow Up Flag: Follow up

Flag Status:

Red

Attachments:

ACTIFLO-WET-WEATHER-PROJECTS-020207.doc; WEF-Greenfield-IN-2006.pdf;

LAWRENCE-KS-BV-WEFTEEC-2005.pdf

Rebecca,

I wanted to send you a proposal for Actflo on Wood River as it is the correct way to handle treatment. Please see the below and we will send the proposal next.

Ken Ressler

Ressler & Associates Inc.

PO Box 4018

Ballwin, MO 63022-4018

636-391-8992 Tel.

636-391-1544 Fax

314-409-4976 Cell

kressler@resslerassociates.com

www.resslerassociates.com

----Original Message----

From: Szekeress, Andy [mailto:Andy.Szekeress@veoliawater.com]

Sent: Monday, April 30, 2007 12:40 PM

To: Ken Ressler

Subject: ACTIFLO Satellite Wet Weather Installations

Ken,

As noted in Jordan's message, there are several projects including ACTIFLO and UV disinfection. Following is some general information regarding the ACTIFLO Process for primary/CSO/SSO treatment that might be helpful. As you know, in the last six years ballasted clarification has emerged as a proven treatment approach to economically address wet weather events. The ACTIFLO process offers significant treatment and financial benefits compared to equalization or other treatment alternatives. Current operational experience shows that ACTIFLO consistently removes 80-95% TSS and 50-90% total BOD. The Greenfield paper and the attached Lawrence, KS paper provide representative summary data. We can provide binders containing pilot reports from numerous wet weather studies. The reports contain ACTIFLO operating information including loading rates, chemical dosages, and removal efficiencies. The significant advantages of ACTIFLO over chemically enhanced primary or equalization basins include:

- Denser, more durable floc particles
- Higher specific gravity and resultant settling velocity
- Nominal clarifier loading rates 30x greater (60 gpm/sf vs. 1-2 gpm/sf)
- Rapid start-up/response time (typically 80% TSS/NTU removal in first 10-20 minutes)
- Reduced process volume
- Smaller footprint
- Reduced overall cost
- Greater effluent clarity for improved disinfection efficiency

The ACTIFLO® process is an innovative, proven treatment approach designed to address wet weather events. The principal benefits of ACTIFLO for wet weather flows include vastly reduced space requirements, rapid startup and response times, relative insensitivity to fluctuations in raw water quality, and removal rates greater than conventional systems.

The key behind the ACTIFLO ballasted flocculation process is the use of continuously recycled ballast or fine sand, which attaches to a flocculated particle through a polymer bridge. The addition of ballast provides two benefits: the high specific gravity sand weights flocculated particles leading to much faster solids settling, and the increase in collision frequencies between sand and flocculated particles dramatically increases flocculation kinetics, resulting in very short mixing times. Rapid flocculation kinetics combined with very high settling velocities lead to plant footprints less than 1/10th of conventional treatment processes.

ACTIFLO achieves high quality, consistent effluent characteristics despite varying influent conditions. In addition, rapid start-up performance is important to ensure that the process quickly reaches steady state in order to address transient, peak flow events. The process can be initiated from an idle, standby mode and produce excellent water quality in approximately 15 minutes, or within less than two total process detention times.

The ACTIFLO process maximizes solids removal to minimize downstream treatment requirements. Typical effluent quality as demonstrated by effluent suspended solids (TSS < 20 mg/l), UV254 Transmittance % (UVT > 50%), and turbidity (< 5 NTU) is perfectly suited to UV disinfection thus providing the ideal tool for new tighter consent. With high levels of solids removal in a compact footprint, ACTIFLO provides a cost competitive alternative to the conventional storage solution.

There are currently 14 ACTIFLO Process wet weather flow treatment facilities operating or under construction in the United States, with a total design capacity in excess of 530 MGD. In addition, there are numerous large installations in Canada and Europe including Acheres in Paris treating over 900 MGD CSO. There are also over 100 ACTIFLO installations in the US for tertiary wastewater or surface water treatment - several over 100 MGD.

Attached is a copy of the US installation reference list with brief project summaries. These plants each operate in unique wet weather circumstances. This list describes the unique wet weather operating modes of both satellite and plant sited ACTIFLO installations. Available operating information including chemistry, loading rates, startup, and removal efficiencies can be provided at your request. We would be happy to coordinate a tour of any of these facilities.

I will send the 15 MGD budget proposal and some similar photos and plant information later today. Please let me know if I can provide any additional information or assistance.

Andy Szekeress Regional Product Manager

I. Kruger, Inc. 1977 Friendship Lane Mosinee, WI 54455 Phone/Fax: (715) 693-5960

New Cell no. (920) 243-3348

E-mail: andy.szekeress@veoliawater.com

message and any attachments to it are intended only for the named recipients and may contain confidential information. If you are not one of the intended recipients, please do not duplicate or forward this e-mail message and immediately delete it from your computer. If you received this email in error, please notify postmaster@veoliawater.com

4/30/2007

Rebecca Hoffmann

From:

Szekeress, Andy [Andy.Szekeress@veoliawater.com]

Sent:

Monday, April 30, 2007 3:38 PM

To:

Rebecca Hoffmann (E-mail)

Cc:

kressler@resslerassociates.com

Subject:

Wood River, IL: ACTIFLO Information

Follow Up Flag: Follow up

Flag Status:

Red

Attachments:

WoodRiver 1x15 043007 jrs.doc; cl.043007.ajs.doc; Scope.043007.ajs.doc; Bremerton-WA-

ARTICLE.PDF; SSO-700-building.jpg; SSO-700-ACTIFLO-train.jpg; CEHRSTOP.jpg;

BREMERTON-WA-NIGHT-PHOTO_1.jpg

Rebecca,

Attached are the cover letter, design summary and scope for a 15 MGD CSO treatment train for Wood River, It.

We have three ACTIFLO wet weather facilities at collection system (remote) locations. The balance of our wet weather treatment designs are installed at POTWs for parallel treatment and blending during wet weather flows. Attached is an article and a photo of the Bremerton project. Sorry about the large file size. Following is some general information, also contained in the project list sent earlier:

Project Name:

East Bremerton, WA Remote CSO Facility

Project Location:

Bremerton, WA

Customer/Owner:

City of Bremerton, WA

Consulting Engineer:

CDM

Key Contact, Owner: Size of Facility:

John Bykonen (360) 415-5450 1 x 10 MGD (20 MGD peak hydraulic)

Brief process description: This plant operates as a remote peak excess flow treatment facility in Bremerton, WA. The treatment facility includes a screening step, followed by ACTIFLO followed by UV disinfection (200 MPN fecal). The facility has a 50,000 gallon EQ tank that serves as wide spot in line grit removal, and a 50,000 storage basin for sludge holding. The effluent is discharged into Puget Sound. This plant was placed in operation in December of 2001. The footprint of the Actiflo mixing and settling areas is 16' W x 42.5' L x 16.5' D (12.5' SWD), plus 15' on the end of the clarifier for the sand pump gallery. Chemical metering and storage are housed in a separate building adjacent to the Actiflo.

I have also included a few photos and layout drawing of a 15 MGD satellite treatment system installed at SSO 700 in Cincinnati. The facility was commissioned last fall.

Please let me know if you need any additional information.

Thanks,

Andy Szekeress

Regional Product Manager

I. Kruger, Inc.

1977 Friendship Lane Mosinee, WI 54455

Phone/Fax: (715) 693-5960

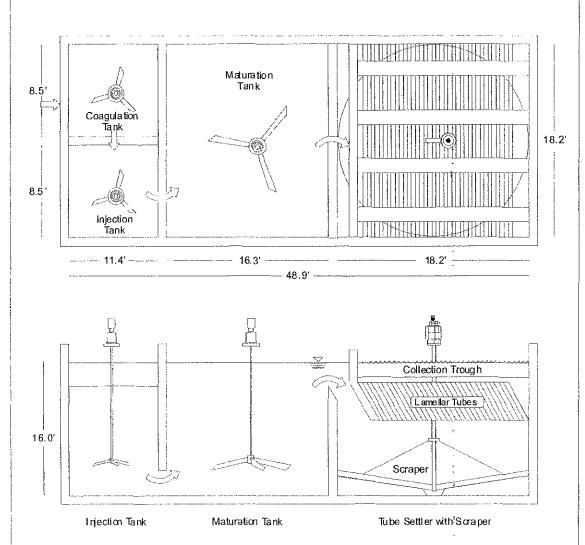
New Cell no. (920) 243-3348

E-mail: andy.szekeress@veoliawater.com

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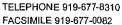
Preliminary ACTIFLO Single Train Layout Wood River, IL

Total Capacity: 15 MGD No. of Trains: 1 x 15 MGD



ACTIFLO® D	esign			
Design Capacity				
Total Design Flow	15 mcp			
No. of Trains	{			
Capacity Per Train	15 MGP			
Coagulation Tank Design				
HRT, min	1			
No. of Tanks per Train	1			
Length, ft	11.4			
Width, ft	8.5			
Side Water Depth, ft	16.0			
Injection Tank Design				
HRT, min	1			
No. of Tanks per Train	- 1			
Length, ft	11.4			
Width, ft	8,5			
Side Water Depth, ft	. 16.0			
Maturation Tank Design				
HRT, min	3			
No. of Tanks per Train	i			
Length, ft	16.3			
Width, ft	- 18.2			
Side Water Depth, ft	16.0			
Settling Tank Design				
No. of Tanks per Train	. 1			
Length, ft	18.2			
Width, ft	18.2			
Side Water Depth, ft	16.0			
Lamella Settling Area, ft ²	- 185			
Overflow Rate at Design Capacity, gpm/ft ²	60			
Sand Recirculation Circuit Design				
No. of Pumps per Train	2 duty + 1 stand-by			
Total Dynamic Head, ft. of water	TBD			
Pump Capacity, gpm	350			
Number of Hydrocyclones per Pump	1			
Estimated Sludge Concentration, % solids	0.1 to 0.5			
Sludge Discharge per Train at Design Flow, gpm	560			

Ste. 100 Cary, NC 27513





April 30, 2007

Rebecca Hoffmann Horner & Shifrin, Inc. 5200 Oakland Avenue St. Louis, MO 63110 Tel: (314) 531-4321

Fax: (314) 531-6966

Re:

ACTIFLO® Budgetary Price Wood River, IL

Dear Ms. Hoffmann,

Thank you for your interest in the Krüger ACTIFLO® process for Combined Sewer Overflow treatment. Enclosed is our price estimate, design summary, layout, and equipment scope of supply for a 1 x 15 MGD ACTIFLO® system.

Please note that the raw water entering ACTIFLO® must have particles greater than 7 mm in size removed by means of mechanical fine screening. Additionally, proper dispersion of the coagulant must be achieved through static or induction mixing prior to the entry of the raw water into the ACTIFLO® system.

Our prices for the 1 x 15 MGD ACTIFLO[®] system is \$1,000,000.00. This price is valid for ninety days from the date of this proposal, is exclusive of any sales or use taxes, and is subject to Krüger Standard Terms and Conditions of Sale.

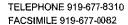
The above price also includes the following:

- Freight to the job site (FOB shipping points),
- O&M manuals,
- Support in process engineering,
- Advice during construction and installation,
- Start-up assistance,
- Operator training,
- One year warranty.

The terms of payment are 15% on submittal of shop drawings, 85% on the delivery of equipment to the site.

Payment shall not be contingent upon receipt of funds by the Contractor from the Owner. All other terms per our standard conditions of sale are attached. Payment terms are net 30 days from the aforementioned benchmarks.







The schedule of delivery shall be as follows:

- Shop drawings will be submitted within 6-8 weeks of receipt of an executed contract by all parties.
- All equipment will be delivered within 16-18 weeks after receipt of approved shop drawings. Approval must be in the written form.
- Installation manuals will be furnished upon delivery of the equipment.
- Operation and Maintenance Manuals will be submitted within 90 days after receipt of approved shop drawings

If you have any questions or require any additional information please do not hesitate to contact Ken Ressler, or call me directly at 715-693-5960.

Sincerely,

Andy Szekeress Regional Product Manager ACTIFLO® Systems

cc. Ken Ressler (Ressler & Associates Inc.)





Cary, NC 27513



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Andy Szekeress Regional Product Manager ACTIFLO® Systems

cc. Ken Ressler (Ressler & Associates Inc.)



ACTIFLO® Equipment Scope of Supply

I. Mechanical Equipment Scope of Supply

	Description	Units Per Train
Coagul	ation Tanks	
•	Coagulation tank top entering mixer(s), TEFC, 460/3/60 motor, 304 stainless steel shaft and impellers.	1
e	Anti- Vortex Baffles, 304 stainless steel	2
Injection	n Tanks	
•	Injection tank top entering mixer(s), TEFC, 460/3/60 motor, 304 stainless steel shaft and impellers.	1
•	Anti- Vortex Baffles, 304 stainless steel	2
Maturs	tion Tanks	
•	Maturation tank top entering mixer(s), TEFC, 460/3/60 inverter duty motor, 304 stainless steel shaft and impellers.	1
6	VFD to be supplied by others.	
Ţ	VID to be supplied by others.	
•	Anti-Vortex Baffles, 304 stainless steel	2
Settling	Tanks	
•	Sludge scraper assemblies, 304 stainless steel, center drive, TEFC, 460/3/60 inverter duty motor, speed reducer, complete with drive shaft, shaft protector, rake arms and blades.	1
•	VFD to be supplied by others.	
•	Wear plates for bottom hoppers, 304 stainless steel.	1
•	Lamella tube module sets, polystyrene.	1 set
•	Lamella tube tie-down assembly, wire rope, clips, etc. 304 stainless steel.	l set
•	Lamella tube supports, 304 stainless steel.	1 set
•	Effluent collection troughs, 304 stainless steel.	4
•	Supports for collection troughs, 304 stainless steel.	1 set

ACTIFLO® Equipment Scope of Supply

I. Mechanical Equipment Scope of Supply

	Description	Units Per Train
Coagul	ation Tanks Coagulation tank top entering mixer(s), TEFC, 460/3/60 motor,	1
	304 stainless steel shaft and impellers.	•
9	Anti- Vortex Baffles, 304 stainless steel	2
Injection	on Tanks	
•	Injection tank top entering mixer(s), TEFC, 460/3/60 motor, 304 stainless steel shaft and impellers.	1
•	Anti- Vortex Baffles, 304 stainless steel	2
Matura	ation Tanks	
•	Maturation tank top entering mixer(s), TEFC, 460/3/60 inverter duty motor, 304 stainless steel shaft and impellers.	1
•	VFD to be supplied by others.	<u></u>
•	Anti-Vortex Baffles, 304 stainless steel	2
Settling	g Tanks	
•	Sludge scraper assemblies, 304 stainless steel, center drive, TEFC, 460/3/60 inverter duty motor, speed reducer, complete with drive shaft, shaft protector, rake arms and blades.	1
6	VFD to be supplied by others.	
•	Wear plates for bottom hoppers, 304 stainless steel.	1
6	: Lamella tube module sets, polystyrene.	1 set
•	Lamella tube tie-down assembly, wire rope, clips, etc. 304 stainless steel.	1 set
•	Lamella tube supports, 304 stainless steel.	1 set
•	Effluent collection troughs, 304 stainless steel.	4
•	Supports for collection troughs, 304 stainless steel.	1 set

Description	Units Per Train
Microsand Recycle Circuits Microsand recirculation pumps, centrifugal, cast iron body, with rubber-lined volute and impeller, hydrostatic gland seal, drip pan, TEFC, 460/3/60 motor with V-belt and pulley drive.	2 duty + 1 stand-by
Discharge side pump isolation valves, eccentric plug type, manual.	3
Suction side pump isolation valves, eccentric plug type, manual.	3
• Flush connection valve, 11/2" diameter, ball valve.	3
Safematic sealwater units, complete with pressure gauge, flowmeter and proximity switch.	3
 Pump discharge pressure switch assembly, complete with pressure gauge, isolation valve and diaphragm seal. 	3
Hydrocyclones, urethane.	2 duty + 1 stand-by
 Hydrocyclone pressure gauge assembly, complete with diaphragm seals and isolation valves. 	3
Hydrocyclone support stand, 304 stainless steel.	3
Hydrocyclone feed header with Sand concentration sampling assembly, complete with ball valve and tygon tubing.	3
Imhoff Cone for Sand Concentration Sampling.	—— —— —— —— —— —— —— —— —— —— —— —— ——
Hydrocyclone overflow (sludge) piping, connecting hydrocyclone overflow to sludge discharge piping.	3
Microsand for Start-up (Tons)	

:

II. Electrical Equipment

PLC Based Control Panel(s)

The PLC based control panel(s) will be supplied to monitor and control the ACTIFLO® process. All panels are required to be installed INDOORS ONLY. Each control panel, will be completely assembled, tested and programmed for the required functionality. Each U.L. labeled panel will be designed according to the scope of supply listed below. The quantity of panels will be based on the number of ACTIFLO® trains in the design. Panel design is also based on control of only the equipment included in Kruger's scope of supply only. If control of additional equipment beyond Kruger's scope of supply is required, please contact Kruger for a price adder.

The PLC Control Panel will include the necessary input/output as listed in the I/O listing. All I/O will be wired to field terminations and include surge arrestion and isolation as required.

Description	Manufacturer
NEMA 12 FREESTANDING ENCLOSURE (INDOOR	HOFFMAN
INSTALLATION ONLY) BACKPANEL	HOFFMAN
PANEL SHELF	HOFFMAN
SURGE PROTECTION	INNOVATIVE TECH
20A MAIN CIRCUIT BREAKER, 1-POLE, 120VAC (MCB)	SQUARE D
24VDC POWER SUPPLY 5A	PHOENIX
	PHOENIX
DC/DC TRANSMITTER ISOLATOR, 4-20 mA	
TVSS PLUG SURGE ARRESTOR	PHOENIX
TVSS PLUG SURGE ARRESTOR BASE	PHOENIX
SLKK 5 DOUBLE LEVEL TERMINAL BLOCK w/GND	PHOENIX
D-UKK 3/5 END COVER	PHOENIX
FB 10-6 FIXED BRIDGE BAR	PHOENIX
E/UK 1 END CLAMP	PHOENIX
UKK 5 DOUBLE LEVEL TERMINAL BLOCK	PHOENIX
2.0A CIRCUIT BREAKER	ALLEN-BRADLEY or equal
3.0A CIRCUIT BREAKER	ALLEN-BRADLEY or equal
7.0A CIRCUIT BREAKER	ALLEN-BRADLEY or equal
15.0A CIRCUIT BREAKER	ALLEN-BRADLEY or equal
TERMINAL BLOCK	ALLEN-BRADLEY
TERMINAL BLOCK (GND)	ALLEN-BRADLEY
CENTER JUMPER - 10 POLE	ALLEN-BRADLEY
END BARRIER	ALLEN-BRADLEY
END ANCHOR	ALLEN-BRADLEY
OUTPUT RELAY, 2PDT, FORM C CONTACT, 24VDC	ALLEN-BRADLEY or equal
RELAY BASES	ALLEN-BRADLEY or equal
SLC 5/05 PROCESSOR	ALLEN-BRADLEY
13 SLOT CHASSIS	ALLEN-BRADLEY
7 SLOT CHASSIS	ALLEN-BRADLEY
POWER SUPPLY	ALLEN-BRADLEY
RACK INTERCONNECT CABLE	ALLEN-BRADLEY
DC POWERED DISCRETE INPUT CARD	ALLEN-BRADLEY
DC POWERED DISCRETE OUTPUT CARD	ALLEN-BRADLEY
DC POWERED ANALOG INPUT CARD	ALLEN-BRADLEY

Description	Manufacturer
DC POWERED ANALOG OUTPUT CARD	ALLEN-BRADLEY
PANELVIEW 1000 WITH ETHERNET	ALLEN-BRADLEY
10/100 BASE T ETHERNET SWITCH	N-TRON
PUSH BUTTON, FLUSH, NON-ILL, MOM. N.O. CONTACT	SQUARE D
MISC. (WIRE, CABLE, WIRE DUCT, DIN RAIL, TERMINAL MARKERS, LEGENDS, NAMEPLATES, ETC.)	-
CABINET LIGHT	
RECEPTACLE W/BOX/COVER, UL LISTED	
ALARM HORN (SUPPLIED LOOSE FOR MOUNTING BY CONTRACTOR)	

III. Process Instrumentation

Description	Units Per Train
Raw Water Turbidimeter, Hach	
pH meter for raw water, Hach	
pH meter after coagulant addition, Hach	1
• Flowmeter, Siemens	1
Settled Water Turbidimeter, Hach	1

IV. Spare Parts

Description	Units Per Train
Mechanical Spare Parts Coagulation tank mixer bearings and seals	
Injection tank mixer bearings and seals	
Maturation tank mixer bearings and seals	
Apex tips	3
• V-belt sets	3

V. Chemical Feed System

Description	Units Per Train
Automatic Liquid Polymer Processing System	
 Liquid polymer feed/activation system, skid mounted packaged assembly, high enery mixing chamber, volumetric metering pump, water solenoid valve, pressure switches and gauges, hose connections, ball valves. Dilution water connection by others. 	1 duty + 1 stand-by
Coagulant Metering Pumps	
Volumetric metering pumps, Diaphragm type, corrosion resistant skid mounted, complete with pump bases, variable speed drives, pressure relief valves, back pressure valves, check valves, calibration columns, isolation ball valves, flush connections, strainers, electric motors, piping and fittings.	1 duty + 1 stand-by